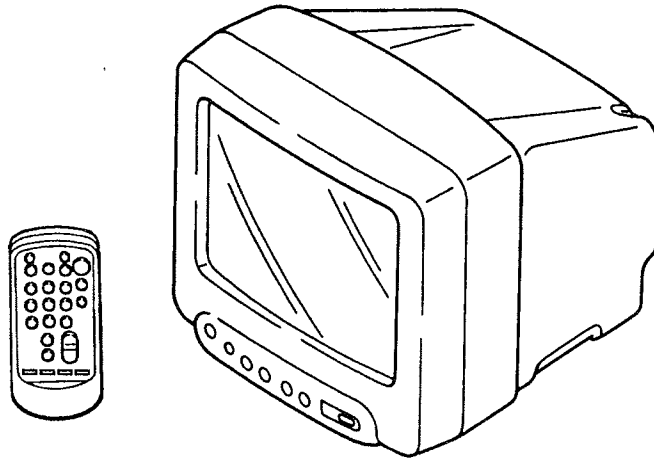


KV-9PT20/9PT40

RM-792

RM-793

SERVICE MANUAL



US Model

KV-9PT20
Chassis No. SCC-H11B-A
KV-9PT40
Chassis No. SCC-H11A-A

Canadian Model

KV-9PT20
Chassis No. SCC-H14B-A
KV-9PT40
Chassis No. SCC-H14A-A

MODELS OF THE SAME SERIES

KV-9PT20/9PT40	

• KV-9PT40

SPECIFICATIONS

Television system

American TV standard, NTSC color

Channel coverage

VHF channels 2-13

UHF channels 14-69

CATV channels 1-125

(181 total receivable channels)

Picture tube

9-inch picture measured diagonally

10-inch picture tube measured diagonally

90-degree deflection

Antenna

VHF/UHF telescopic antenna

Speaker

77mm round (3 1/8 inches), 1.8W

Inputs

VIDEO IN jacks

VIDEO: RCA phono-type 1 Vp-p, 75 ohms

AUDIO: RCA phono-type monaural

EXT ANT (Combined CATV/VHF/UHF 75-ohm, F-type)

Output

Headphone jack

Power requirements

120 V AC, 60 Hz

Power consumption

AC IN 55 W max.

Dimensions

Approx. 259 x 245 x 295 mm

(w/h/d)

(10 1/4 x 9 3/4 x 11 5/8 inches)

Mass

Approx. 5.9 kg (13 lb)

Supplied accessories

Remote commander RM-793 with 2

size AA (R6) batteries (1)

Telescopic antenna (1)

Dual mode swivel bracket (1)

Attachment parts (1)

Paper pattern (1)

Optional accessories

Connecting cord VMC-920MS

— Continued on page 2 —



TRINITRON® COLOR TV
SONY®

● KV-9PT20

Television system

American TV standard, NTSC color

Channel coverage

VHF channels 2-13

UHF channels 14-69

CATV channels 1-125

(181 total receivable channels)

Picture tube

9-inch picture measured diagonally

10-inch picture tube measured diagonally

90-degree deflection

Antenna

VHF/UHF telescopic antenna

Speaker

77mm round (3 1/8 inches), 1.8W

Inputs

VIDEO IN jacks

VIDEO: RCA phono-type 1 Vp-p, 75 ohms

AUDIO: RCA phono-type monaural

EXT ANT (Combined CATV/VHF/

UHF 75-ohm, F-type)

Output

Headphone jack

Power requirements

120 V AC, 60 Hz

12 V DC

Power consumption

AC IN 55 W max.

DC IN 55 W max.

Dimensions

Approx. 259 x 245 x 295 mm

(w/h/d)

(10 1/4 x 9 3/4 x 11 5/8 inches)

Mass

Approx. 5.9 kg (13 lb)

Supplied accessories

Remote commander RM-792 with 2 size AA (R6) batteries (1)

AC power cord (1)

Telescopic antenna (1)

Car battery cord DCC-22AW (1)

Optional accessories

Connecting cord VMC-920MS

Design and specifications are subject to change without notice.

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
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Setting Up	5		3-2. Focus.....	18	
Connections	6		3-3. Beam Landing.....	18	
Setting Up the Remote Commander.....	7		3-4. Convergence.....	19	
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(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

(ATTENTION)

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

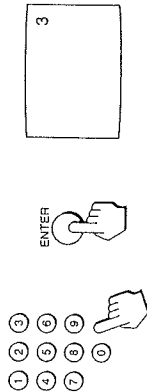
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDE À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

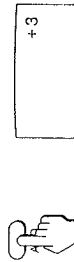
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

Erasing or adding channels

- Press the 0-9 buttons and then press ENTER to select the channel to be added or erased.

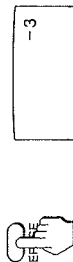


- Press ADD to add channels.



A "+" appears before the number for a moment. This channel has now been added to the channel scan memory.

Press ERASE to erase channels.



A "-" appears before the number for a moment. This channel has now been erased from the channel scan memory. The next time you press CH +/-, this channel will be skipped.

Repeat steps 1 and 2 to add or erase other channels.

Note

When you erase a VHF or UHF channel, the cable TV channel with the same number is also erased, and vice versa.

Cable TV channel chart

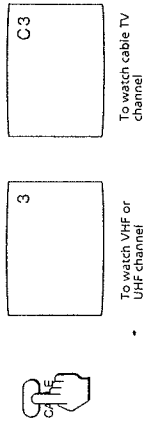
Cable TV systems use letters or numbers to designate channels. The chart below shows the cable TV channels and the corresponding channel numbers on this TV.

Cable TV channel	Number on this TV	Cable TV channel	Number on this TV
A-8	1	T	33
A-7	5	U	34
A-6	6	V	35
A	14	W	36
B	15	W+1	37
C	16	W+2	38
D	17	W+3	39
E	18	:	:
F	19	W+57	93
G	20	W+58	94
H	21	A-5	95
I	22	A-4	96
J	23	A-3	97
K	24	A-2	98
L	25	A-1	99
M	26	W+59	100
N	27	W+60	101
O	28	W+61	102
P	29	:	:
Q	30	W+82	123
R	31	W+83	124
S	32	W+84	125

Note that the channel number assignment shown in the chart may not correspond to the channel number used by your local cable company. Check with your local cable TV company for more information on the available channels.

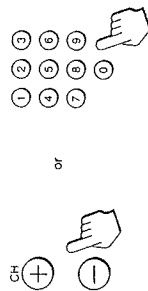
Watching the TV

- Press CABLE so that the appropriate mode appears.



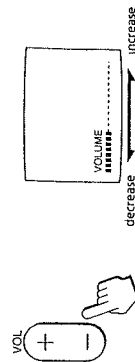
- Press CH +/- or 0-9 buttons and the ENTER button to select the channel you want to watch.

For example, to select channel 10, press 1,0 and ENTER.



- Press VOL +/- to adjust the volume.

To increase volume, press "+". To decrease volume, press "-".



- Press POWER to turn on the TV.



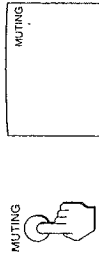
- Press TV/VIDEO to select TV mode.

(TV or VIDEO mode is selected in sequence.)



Muting the sound

Press MUTE to mute the TV sound.

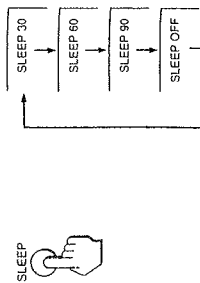


To turn muting off

Press MUTE again, or VOL+,.

Setting the sleep timer

Press SLEEP to set the TV to turn off in the amount of time you choose. Each time you press SLEEP, the time increments 30, 60 and 90 are selected in sequence.

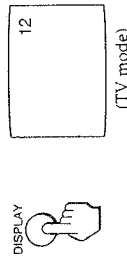


The "SLEEP" display (red) will appear 1 minutes before the TV turns off.

To turn the sleep timer off
Press SLEEP once more after 90.

Displaying the input mode

Press DISPLAY. The current input modes (channel, TV/VIDEO) will be displayed on the screen.



To turn the display off
Press DISPLAY again.

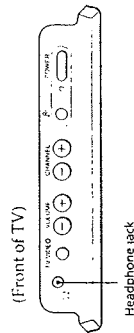
Switching quickly between 2 channels

Press JUMP once to recall the channel you were watching previously; press JUMP again to switch back. Use this feature to keep track of two programs alternately.



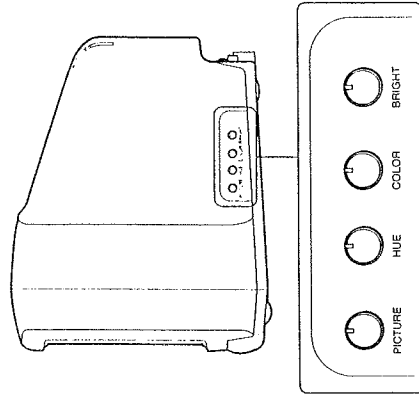
Listening with a headphone

You can listen to the TV's sound through an optional headphone connected to a (headphone) jack.



Adjusting Picture Quality

You can adjust the quality of the picture to suit your taste. For details on each item, see "Description of adjustable items" below.



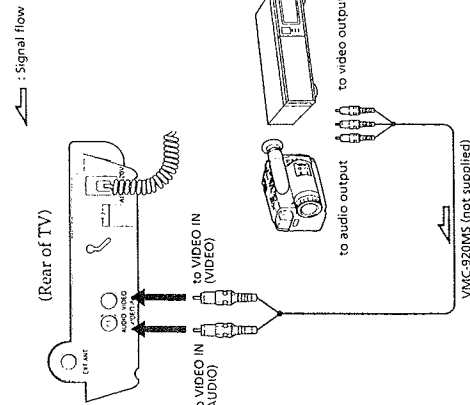
Description of adjustable items

Item	Turn left to	Turn right to
PICTURE	Decrease picture contrast	Increase picture contrast
HUE	Make skin tones become purplish	Make skin tones become greenish
COLOR	Decrease color intensity	Increase color intensity
BRIGHT	Decrease brightness	Increase brightness

Connecting Video Equipment

Connecting a VCR or 8mm video camera

Before connecting, turn off the power on all equipment.



Watching a VCR picture

1 Turn on the TV.

2 Press TV/VIDEO so that "VIDEO" appears on the screen.

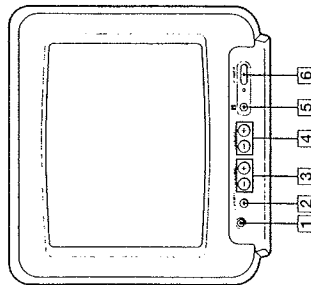
To return to TV mode

Press TV/VIDEO so that a channel number appears on the screen.

Identifying the Parts

For details, refer to the pages indicated by the numbered black circles ●.

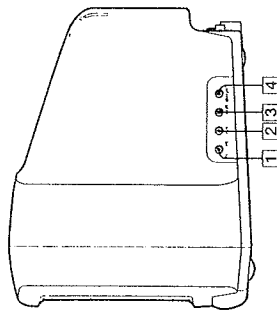
Front



- 1 Headphone jack 12
- 2 TV/VIDEO button* 9, 11, 13
- 3 VOLUME +/- buttons* 11, 12
- 4 CHANNEL +/- buttons* 9, 11
- 5 Remote detector
- 6 POWER button* and indicator 9, 11

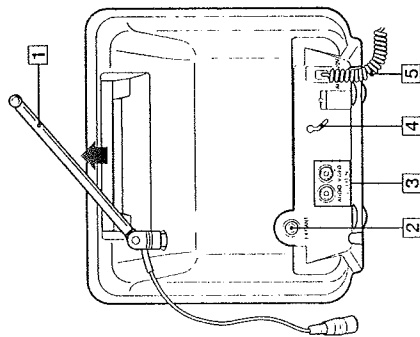
* The same name function buttons are also located on the remote commander (p.15)

Right side



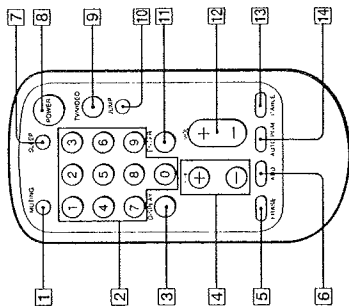
- 1 PICTURE control 13
- 2 HUE control 13
- 3 COLOR control 13
- 4 BRIGHT(brightness) control 13

Rear



- 1 Telescopic antenna 7
- 2 EXT ANT 7 (Antenna input terminal)
- 3 VIDEO IN jacks 13 (AUDIO/VIDEO)
- 4 Strap hole 7
- 5 AC power cord 7

Remote commander



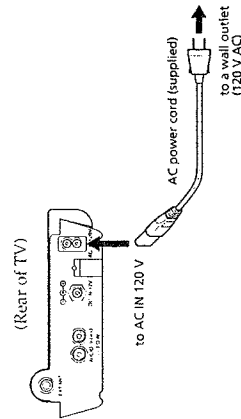
- 1 MUTING button 2
- 2 0-9 buttons 10, 11
- 3 DISPLAY button 12
- 4 CH (channel) +/- buttons* 9, 11
- 5 ERASE button 10
- 6 ADD button 10
- 7 SLEEP button 12
- 8 POWER buttons* 9, 11
- 9 TV/VIDEO button* 9, 11, 13
- 10 JUMP button 12
- 11 ENTER button 10, 11
- 12 VOL (volume) +/- button* 11, 12
- 13 CABLE button 9, 11
- 14 AUTO PGM button 9

* The same function buttons are also located on the TV (p.14).

• KV-9PT20

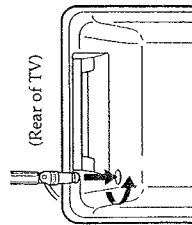
Connections

Using house current

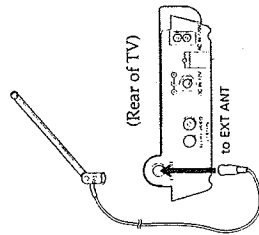


Connecting the supplied telescopic antenna

- 1 Insert the antenna into the receptacle on the TV, and twist to ensure a secure fit.



- 2 Attach the antenna connector to the EXT ANT terminal.

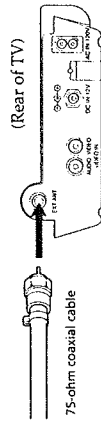


We recommend connecting VHF/UHF antennas for better picture quality. You can receive cable TV by connecting a cable supplied by your local cable company.

Before connecting VHF/UHF antennas, remove the telescopic antenna from the EXT ANT terminal on the TV.

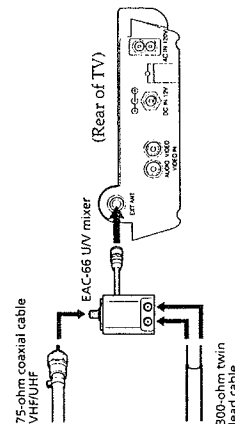
Prepare the antenna end according to your cable type.

Using a VHF, UHF or combination VHF/UHF antenna, or CATV cable



Connecting both VHF and UHF antennas

Use the EAC-66 U/V mixer (not supplied).



Notes

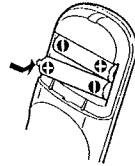
- Most VHF/UHF combination antennas have a signal splitter. Remove the splitter before attaching the appropriate connector.
- If you use the U/V mixer, snow and noise may appear in the picture when viewing cable TV channels over 37 (W+1).

Note to CATV system installer in the U.S.A.:

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Setting up the Remote Commander

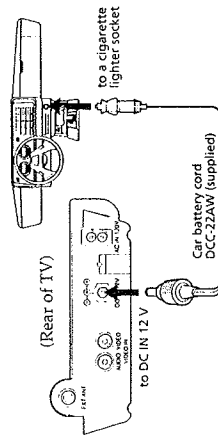
Insert two size AA (R6) batteries (supplied) in correct polarity inside the battery compartment.



Notes

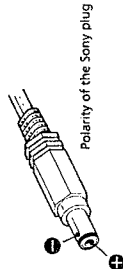
- In normal operation, batteries will last up to half a year. If the TV does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between in remote commander and the TV.
- Operable range is limited.
- If a remote commander not recommended is used to operate this TV, or if the supplied remote commander is used to operate another TV, the TV may not operate properly.
- Do not handle the remote commander roughly. Do not drop it, step on it or let it get wet.

Using a car battery



Notes

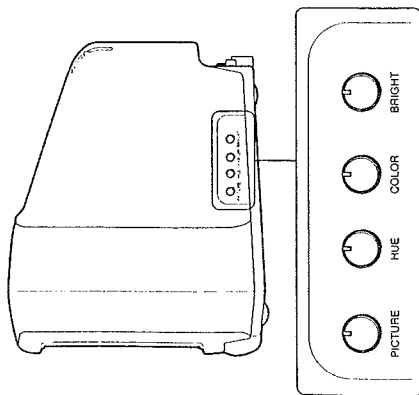
- For car use, the TV is designed for negative ground 12 V DC operation only.
- Use only the supplied car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



- When you aren't using the TV, remove the car battery cord from the cigarette lighter socket.

Adjusting Picture Quality

You can adjust the quality of the picture to suit your taste. For details on each item, see "Description of adjustable items" below.



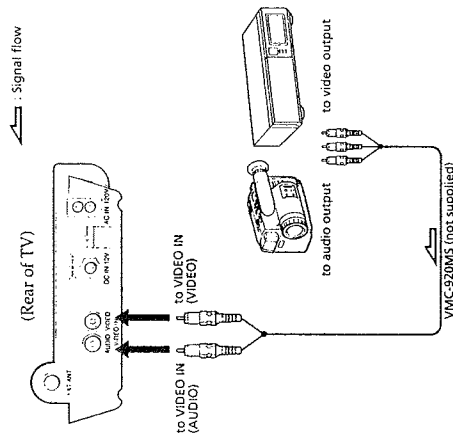
Description of adjustable items

Item	Turn left to	Turn right to
PICTURE	Decrease picture contrast	Increase picture contrast
HUE	Make skin tones become purplish	Make skin tones become greenish
COLOR	Decrease color intensity	Increase color intensity
BRIGHT	Decrease brightness	Increase brightness

Connecting Video Equipment

Connecting a VCR or 8mm video camera

Before connecting, turn off the power on all equipment.



Watching a VCR picture

- 1 Turn on the TV.
- 2 Press TV/VIDEO so that "VIDEO" appears on the screen.

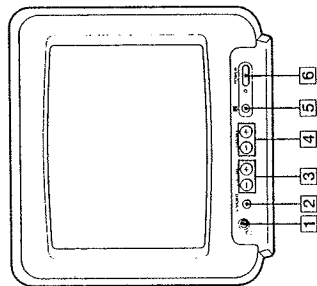
To return to TV mode

Press TV/VIDEO so that a channel number appears on the screen.

Identifying the Parts

For details, refer to the pages indicated by the numbered black circles ●.

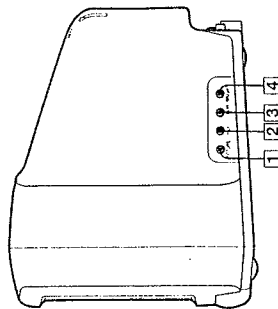
Front



- 1 Headphone jack ●
- 2 TV/VIDEO button* ● ● ● ●
- 3 VOLUME +/- buttons* ● ●
- 4 CHANNEL +/- buttons* ● ●
- 5 Remote detector
- 6 POWER button* and indicator ● ●

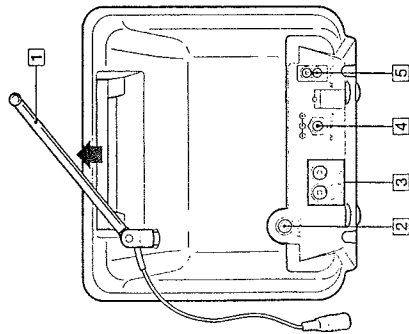
* The same name function buttons are also located on the remote commander (p.12)

Right side



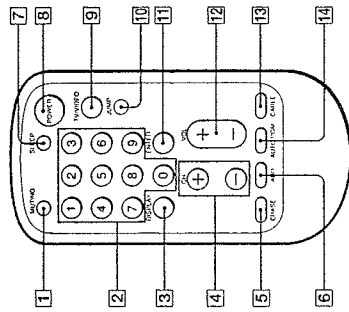
- 1 PICTURE control ●
- 2 HUE control ●
- 3 COLOR control ●
- 4 BRIGHT(brightness) control ●

Rear



- 1 Telescopic antenna
- 2 EXT ANT (Antenna input terminal)
- 3 VIDEO IN jacks (AUDIO/VIDEO)
- 4 DC IN 12 V jack
- 5 AC IN 120 V socket

Remote commander



- 1 Muting button
- 2 0-9 buttons
- 3 DISPLAY button
- 4 CH (channel) +/- buttons
- 5 ERASE button
- 6 ADD button
- 7 SLEEP button
- 8 POWER buttons
- 9 TV/VIDEO button
- 10 JUMP button
- 11 ENTER button
- 12 VOL (volume) +/- button
- 13 CABLE button
- 14 AUTO PGM button

* The same function buttons are also located on the TV (p.11).

SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted:

PICTURE control normal
BRIGHTNESS control normal

Perform the adjustments in order as follows:

1. Screen (G 2)
2. Focus
3. Beam landing
4. Convergence
5. White balance
6. Sub brightness

Note: Test Equipment Required.

1. Digital multimeter
2. DC Power Supply
3. Color bar Pattern Generator
4. Degausser

3-1. SCREEN (G 2)

1. Input a dots pattern.
2. Set the PIC, BRT controls at minimum and COLOR control at normal.
3. Adjust BKG VRs (VR701, VR702 and VR703) so that voltages on the red, green and blue cathodes are 100V dc with an oscilloscope as shown in Fig.1.
4. Observe the screen and adjust SCREEN VR (FBT) to obtain the faintly visible background of dot signal.

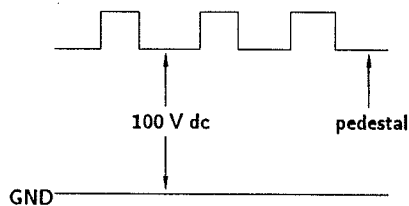


Fig. 1

3-2. FOCUS

Adjust FOCUS control (FBT) for best picture.

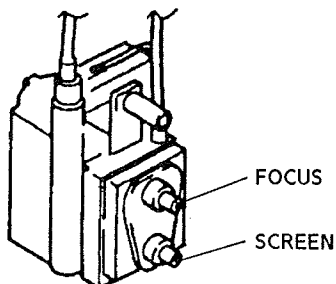


Fig. 2

Preparation:

- Feed in the white pattern signal.
- Before starting, degauss the entire screen.

3-3. BEAM LANDING

1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig.4
3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are at the sides evenly. (Fig.5)
5. Move the deflection yoke forward, and adjust so that the entire screen becomes green. (Fig.3)
6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets. (Fig.6)

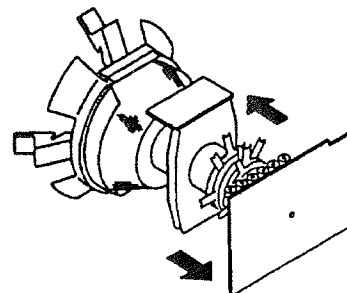


Fig. 3

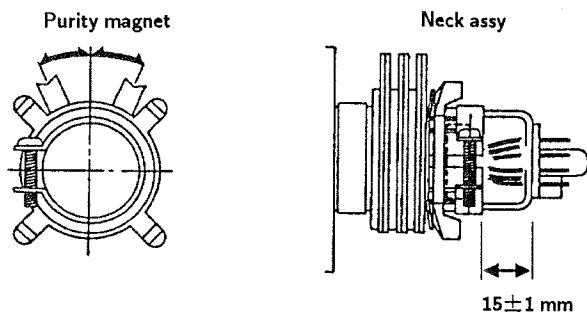


Fig. 4

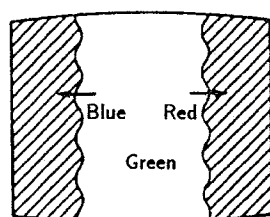


Fig. 5

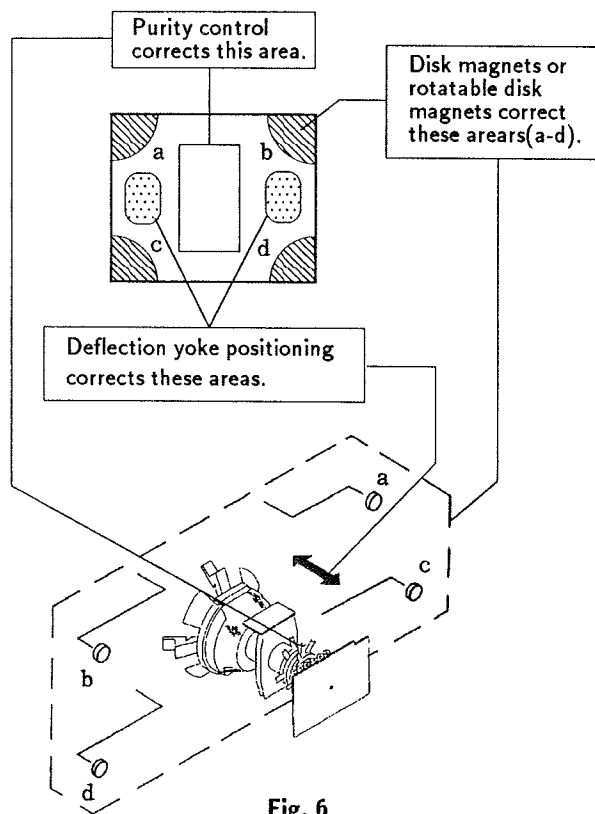


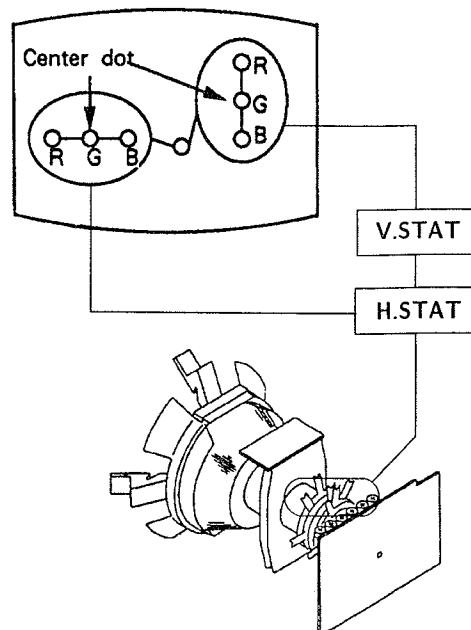
Fig. 6

3-4. CONVERGENCE

Preparation:

- Before starting, perform FOCUS, H.SIZE, V.LIN and V.SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in dot pattern.

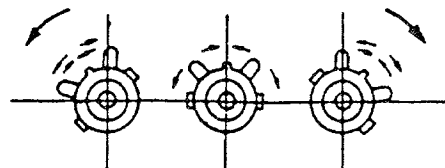
(1) Horizontal and Vertical Static Convergence



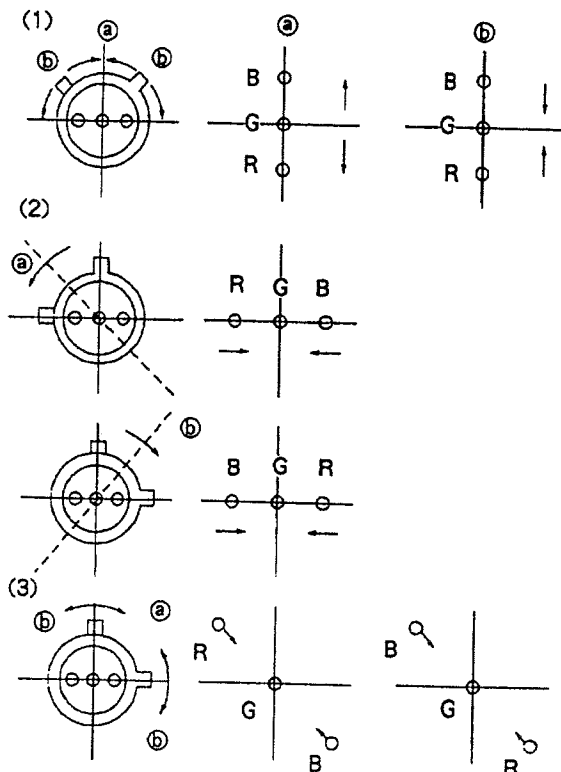
1. V. STAT Adjustment
Turn the V. STAT magnet to left or right so that the vertical red, green and blue dots converge in the center of the screen.
2. H. STAT Adjustment
Simultaneously turn the two V. STAT magnets in the same direction so that the horizontal red, green and blue dots converge in the center of the screen.

Note : Do not move the purity tab during adjustment with the V. STAT magnet. If the purity tab is moved, the convergence condition will change, and possibly lead to misadjustment of a different yoke.

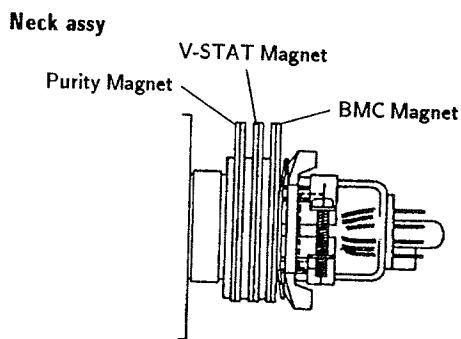
- Tilt the V.STAT magnet and adjust the static convergence by turning the V.STAT magnet to the left or right.



3. The V-STAT magnet are moved in the direction of the ① and ② arrows and the red, green and blue points move as shown below.

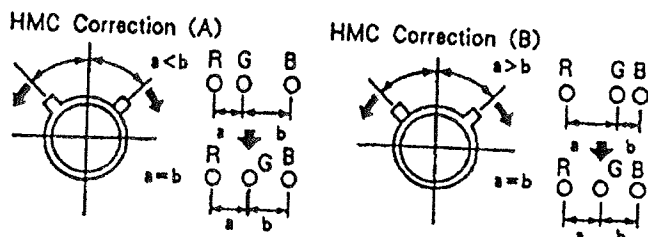


If the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

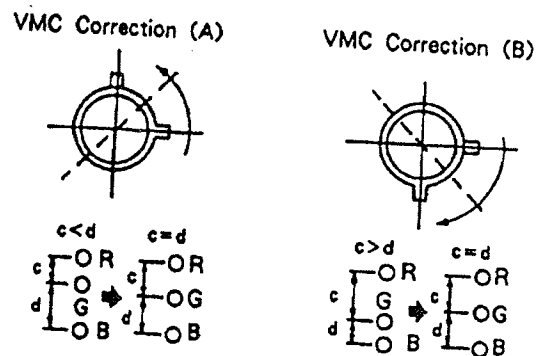


• HMC and VMC correction for BMC (6-pole) magnet

1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-pole) magnet.



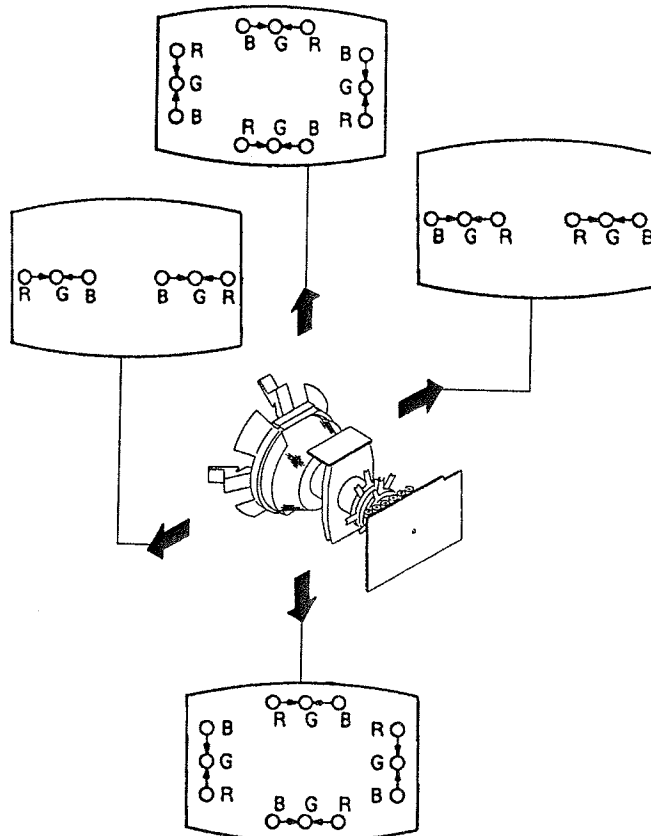
2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-pole) magnet.



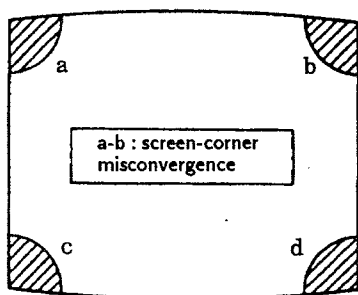
(2) Dynamic Convergence Adjustment

Preparation:

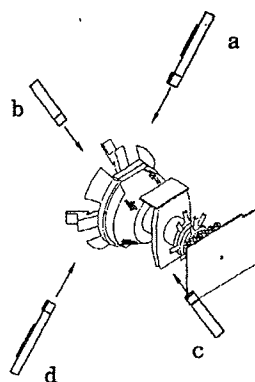
- Before starting perform Horizontal and Vertical static convergence Adjustment.
- 1. Slightly loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.
- 3. Move the deflection yoke for best convergence as shown below.
- 4. Tighten the deflection yoke screw.
- 5. Install the deflection yoke spacers.



(3) Screen-corner Convergence



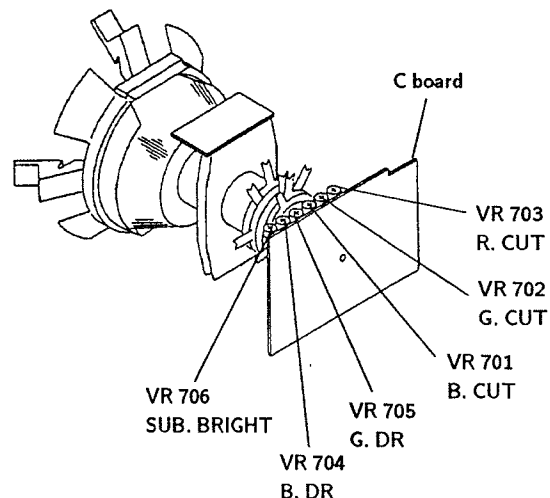
Affix a Permalloy ass'y corresponding
to the misconverged areas



Permalloy assembly

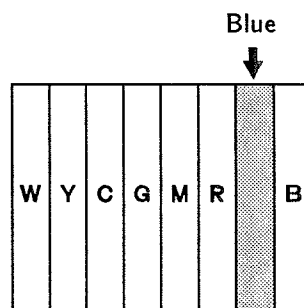
3-5. WHITE BALANCE

1. Receive a all white signal using a pattern generator.
2. Set the PIC control to minimum and set the BRIGHTNESS control at normal.
3. Adjust BKG controls (VR701, 702, 703) for best white balance.
4. Set the PICTURE control to maximum. Observe the screen and adjust the DRIVE controls (VR704, 705) for best white balance.
5. Repeat steps 3 and 4.



3-6. SUB BRIGHTNESS

1. Receive a color bar signal.
2. Set the PICTURE and BRIGHTNESS control to minimum.
3. Adjust VR706 so that the blue section becomes slightly brighter.



SECTION 4 SAFETY RELATED ADJUSTMENT

☒ R650, R678, VR651, VR652 B+VOLTAGE CONFIRMATION AND ADJUSTMENT

The following adjustment should be performed when replacing the following components.
(Marked with ☒ on the schematic diagram)

F Board

IC601, PC601, Q651, Q660, D605, D664, C671, J641, R669, R674, R676, R677, R678, R694, T601, VR652

1. Set the power source to $120 \pm 5V$ AC.
2. Receive a color bar signal.
3. Set the picture volume and brightness at the center click position.
4. Adjust VR652 (40V ADJ), then adjust the B+ power source. At this time, confirm that the power is $39.5 \pm 0.1V$ DC. (pin③ and ④ to CN651F on F board)
5. When step 4 is not satisfied, readjustment should be performed by altering the resistance value of R 678. ($4.7k\Omega$ or $5.1k\Omega$)

(KV-9PT20 only)

F Board

IC651, D657, D658, J639, R650, R655, R656, R668, R669, R673, R680, R693, T601, VR651

1. Set the power source to $12 \pm 0.6V$ DC.
2. Receive a color bar signal.
3. Set the picture volume and brightness at the center click position.
4. Adjust VR651 (40V ADJ), then adjust the +B power source. At this time, confirm that the power is $39.5 \pm 0.1V$ DC. (pin③ and ④ to CN651F on F board)
5. When step 4 is not satisfied, readjustment should be performed by altering the resistance value of R 650. ($470k\Omega$ or delete)

☒ CONFIRMATION METHOD (HOLD DOWN CONFIRMATION) AND READJUSTMENT

The following adjustment should be performed when replacing the following components.
(Marked with ☒ on the schematic diagram)

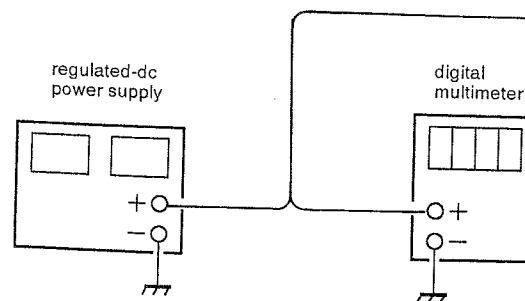
D Board

IC201, D804, D807, C210, C806, C808, C814, C815, C827, L801, R206, R218, R810, R836, T802, VL801, DY

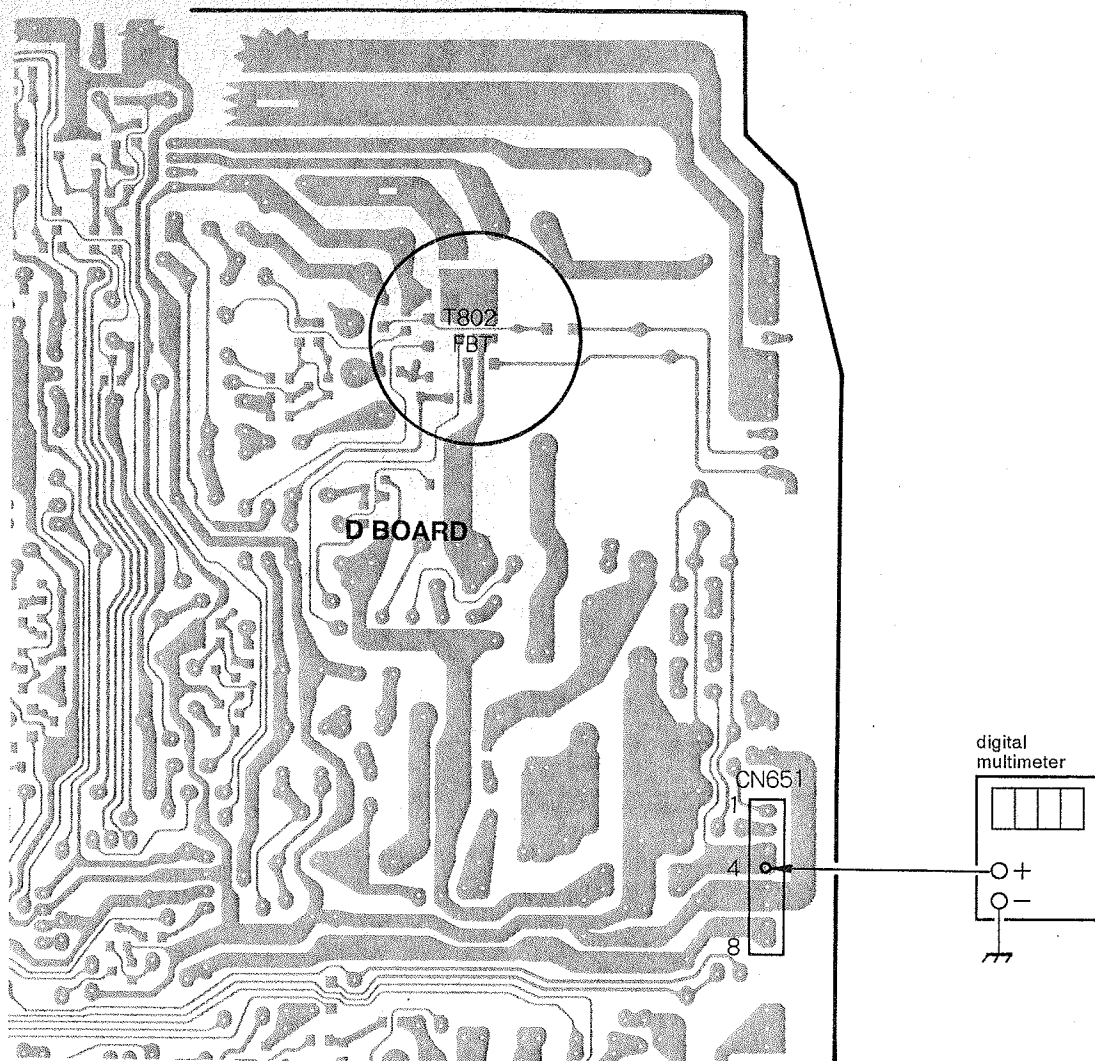
1. Receive a color bar signal.
2. Set the picture volume and brightness at the center click position.
3. Confirm that 17V DC voltage is output to TP1 on F board.
4. Next, apply 20.5V DC external voltage to TP1 and confirm that it hold down.
5. When step 4 is not satisfied, readjustment should be performed by altering the components value. (D board marked with ☒)

CONFIRMATION AFTER REPLACING FBTV

Confirm that $17V \pm 1V$ DC voltage is output to TP1 when replacing the flyback transformer.



5-1.



RF A

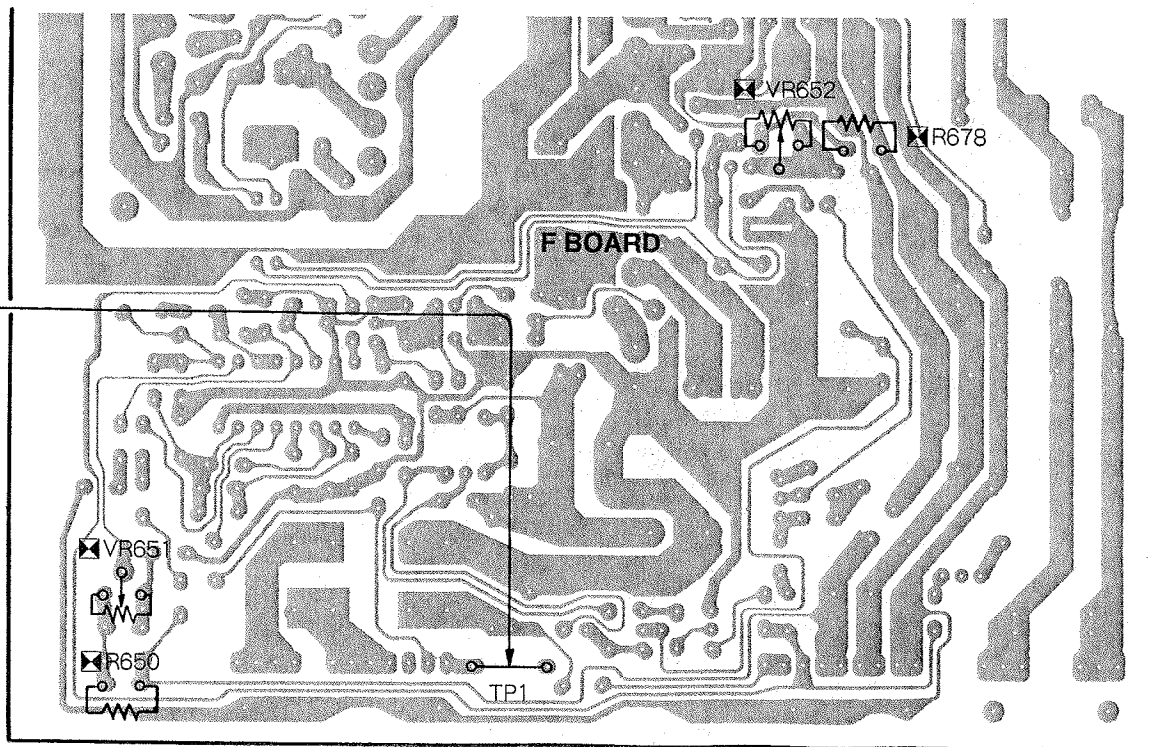
1. Re
2. Ad
- mc

DISP

1. Ad
- cor

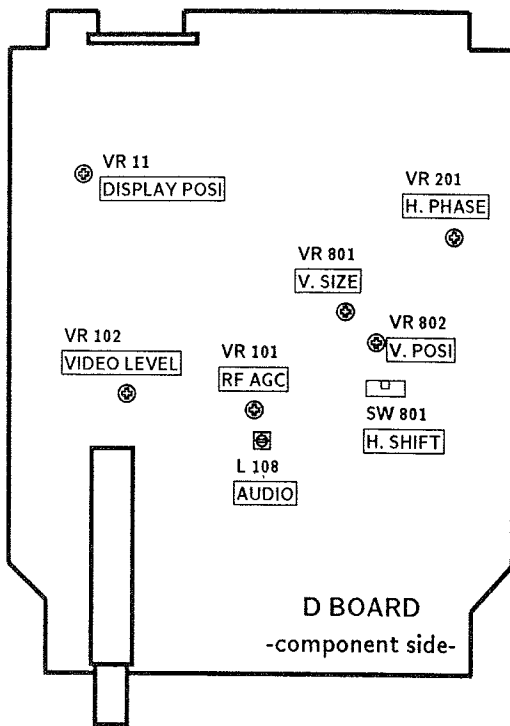
AUDI

1. Rec
2. Adj
- wit



SECTION 5 CIRCUIT ADJUSTMENTS

5-1. D BOARD ADJUSTMENTS

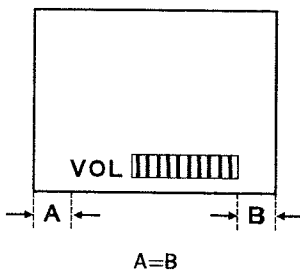


RF AGC ADJUSTMENT (VR101)

1. Receive an off-air signal.
2. Adjust VR101 so that snow noise and cross-modulation just disappear the picture.

DISPLAY POSITION ADJUSTMENT (VR11)

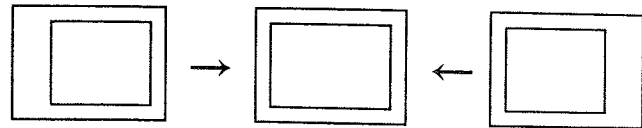
1. Adjust VR11 so that VOL bar display position comes to the position shown in the figure.



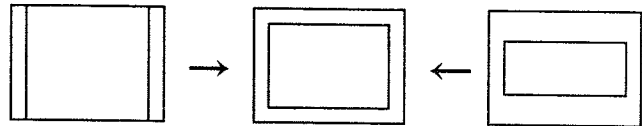
AUDIO ADJUSTMENT (L108)

1. Receive a broadcast signal.
2. Adjust L108 so that the sound become optimum with minimum distortion.

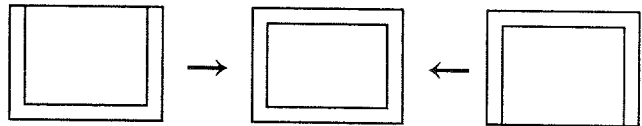
HORIZONTAL SHIFT (SW 801) HORIZONTAL PHASE (VR 201)



VERTICAL SIZE (VR 801)



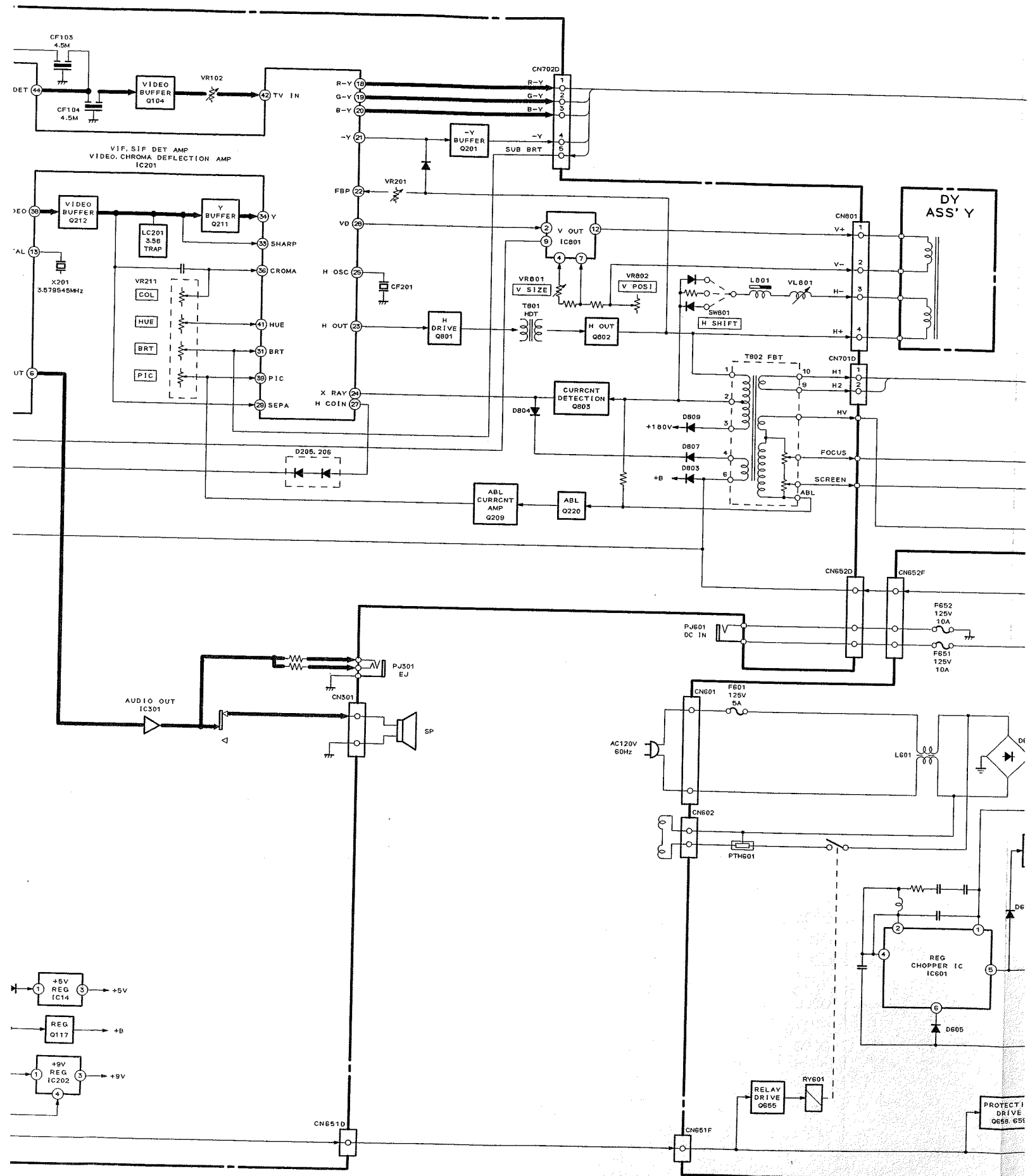
VERTICAL POSITION (VR 802)

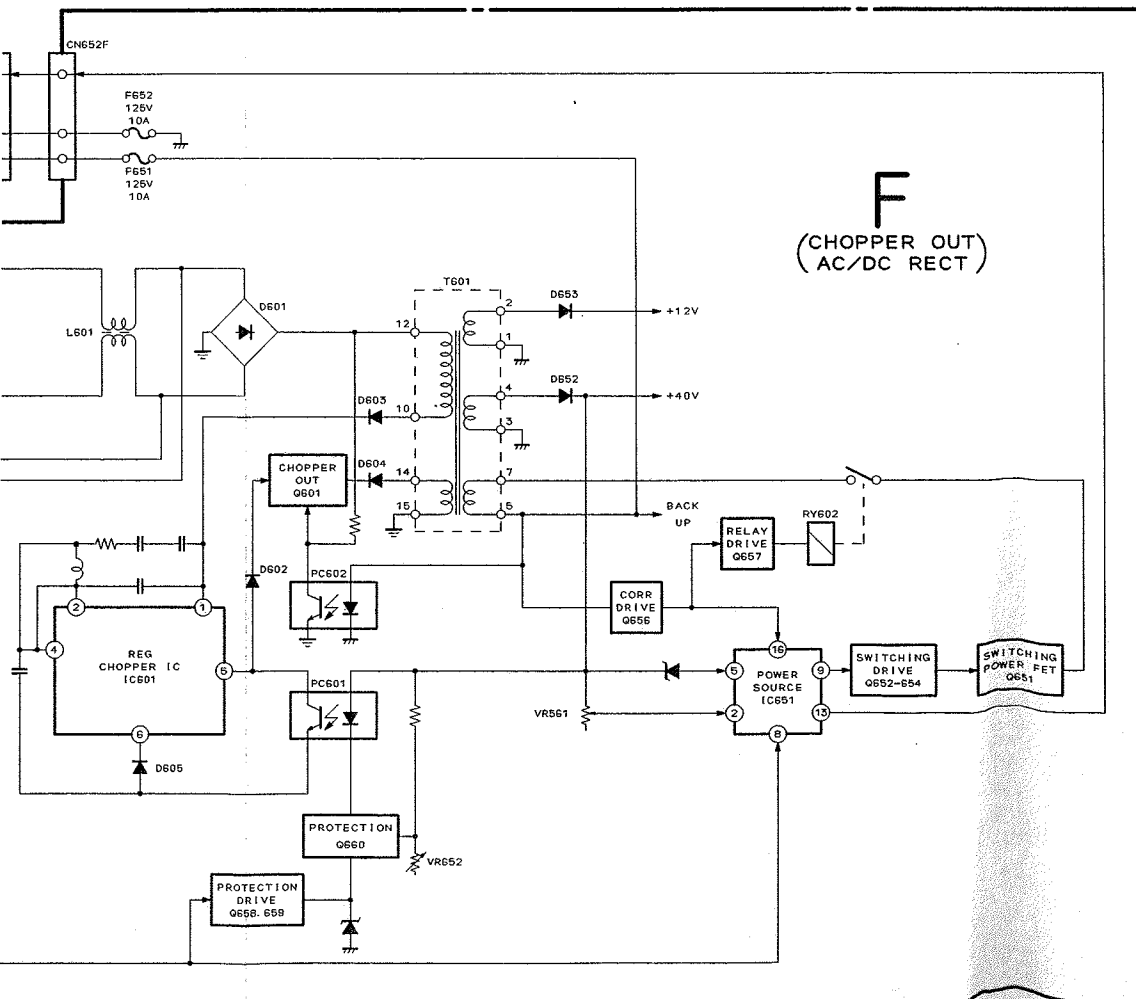
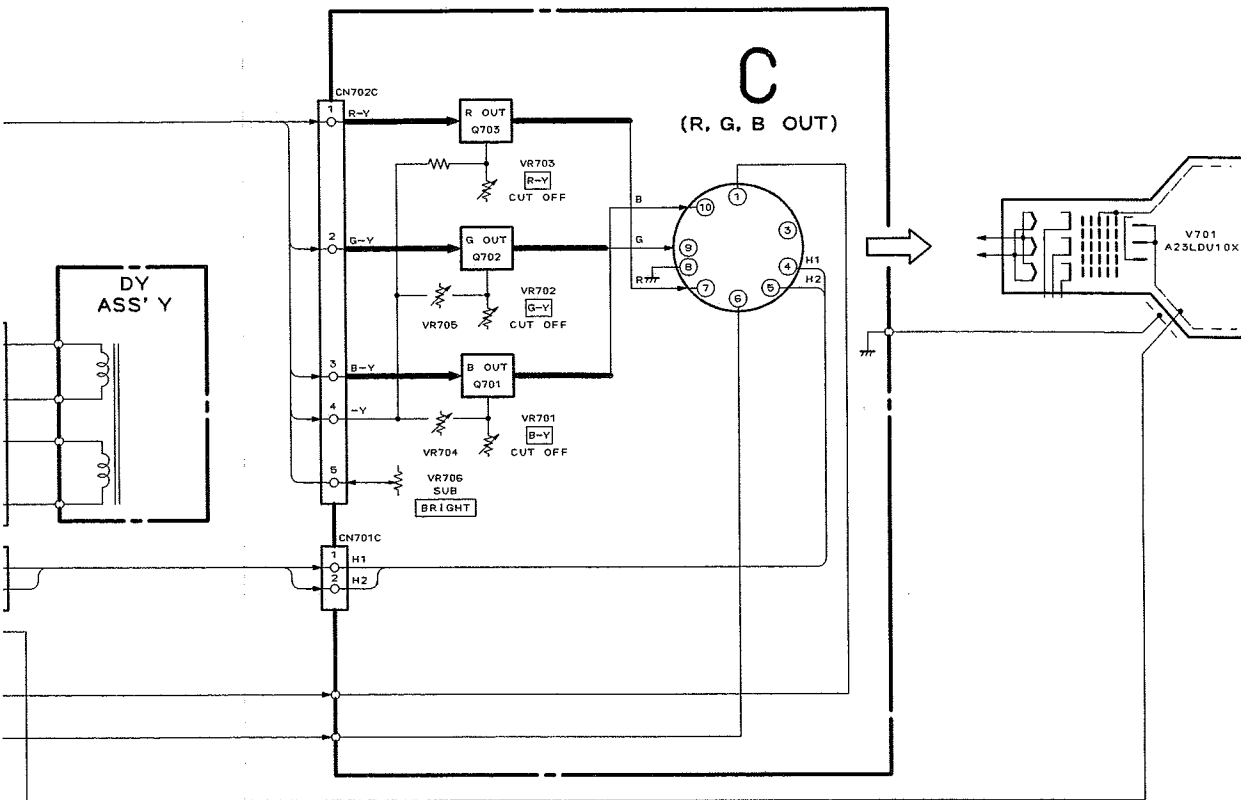


VIDEO LEVEL ADJUSTMENT (VR102)

1. Receive a color bar signal.
2. Connect an oscilloscope to TP1 on D board.
3. Adjust VR102 so that the VIDEO LEVEL to 1.0 V_{p-p}.

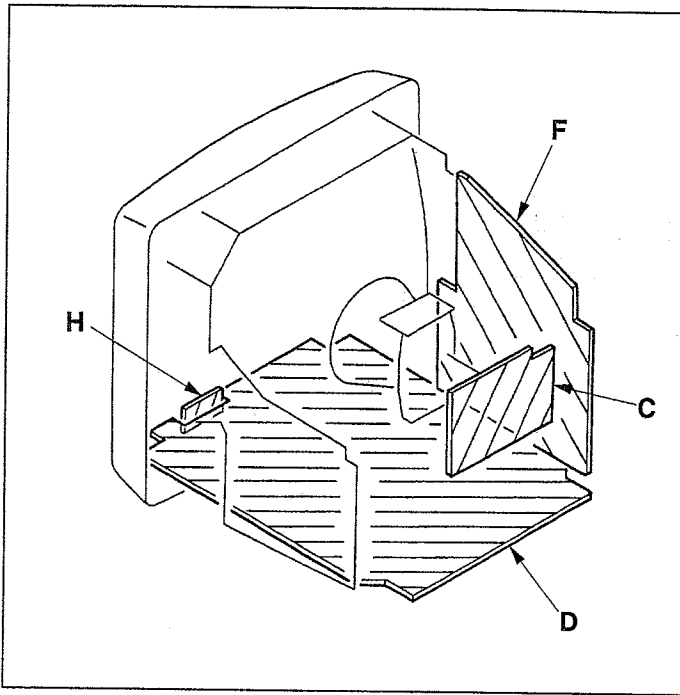






Schematic diagram

6-2. CIRCUIT BOARDS DIAGRAM



6-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$ 50V or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : $\frac{1}{4}\text{W}$

- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- \perp : earth-ground.
- : earth-chassis.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.
(Refer to VR651, 652 adjustment on Page 22, 23.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
IC201, D804, D807, C210, C806, C808, C814, C815, C827, L801, R206, R218, R810, R836, T802, VL801, DY	D BOARD HOLD-DOWN
IC651, D657, D658, J639, R650, R655, R656, R668, R669, R673, R680, R693, T601, VR651	F BOARD VR651, R650 (B+ MAX)
IC601, PC601, Q651, Q660, D605, D664, C671, J641, R669, R674, R676, R678, R694, T601, VR652	F BOARD VR652, R678 (B+ MAX)

- Readings are taken with a color-bar signal input.
- Readings are taken with a $10\text{M}\Omega$ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Measurement impossibility.
- : B + line.
- : B - line.
(Actual measured value may be different).
- : signal path.(RF)
- Circled numbers are waveform references.

Reference information

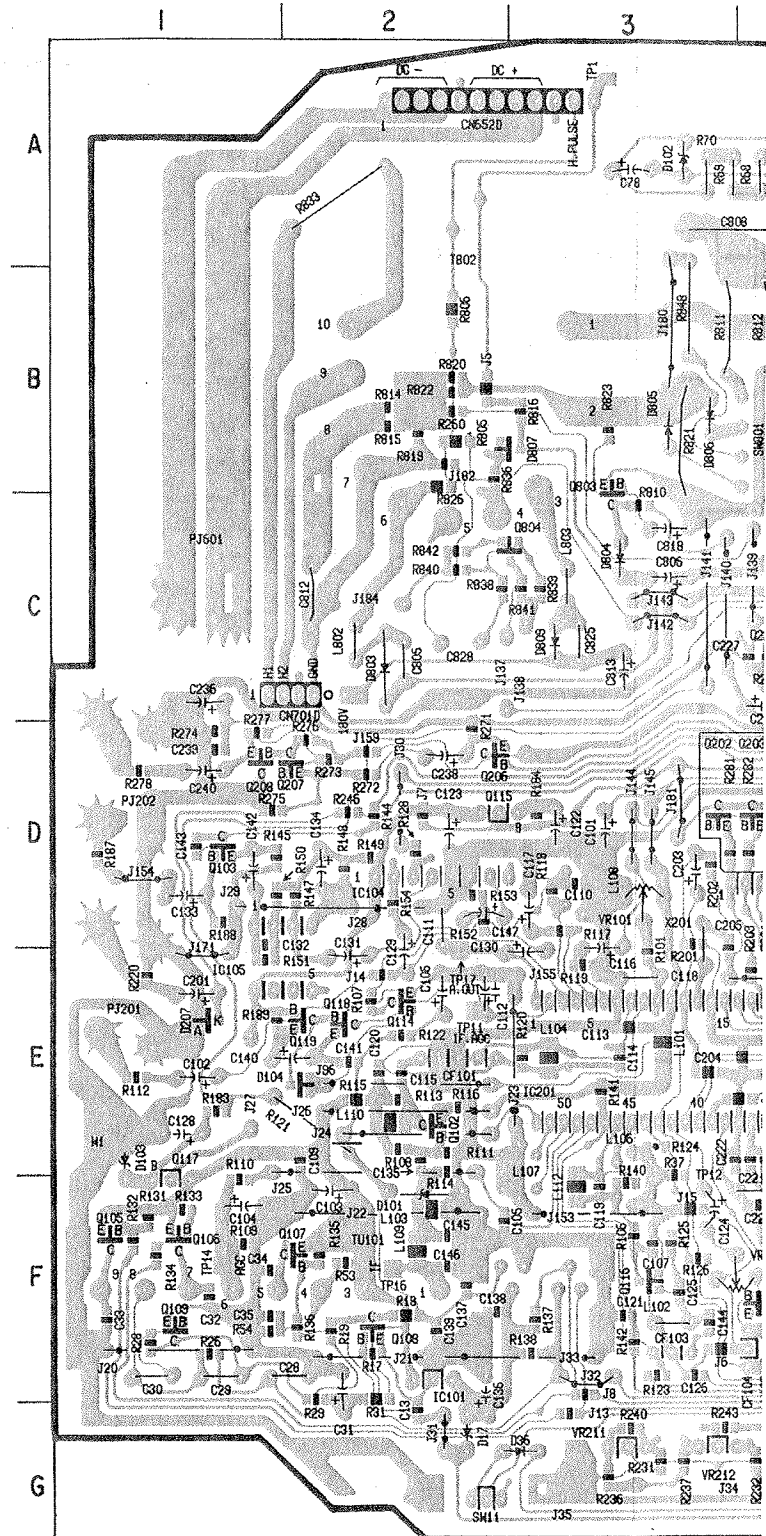
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: *	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

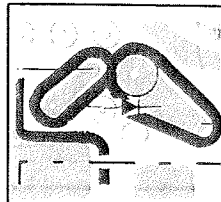
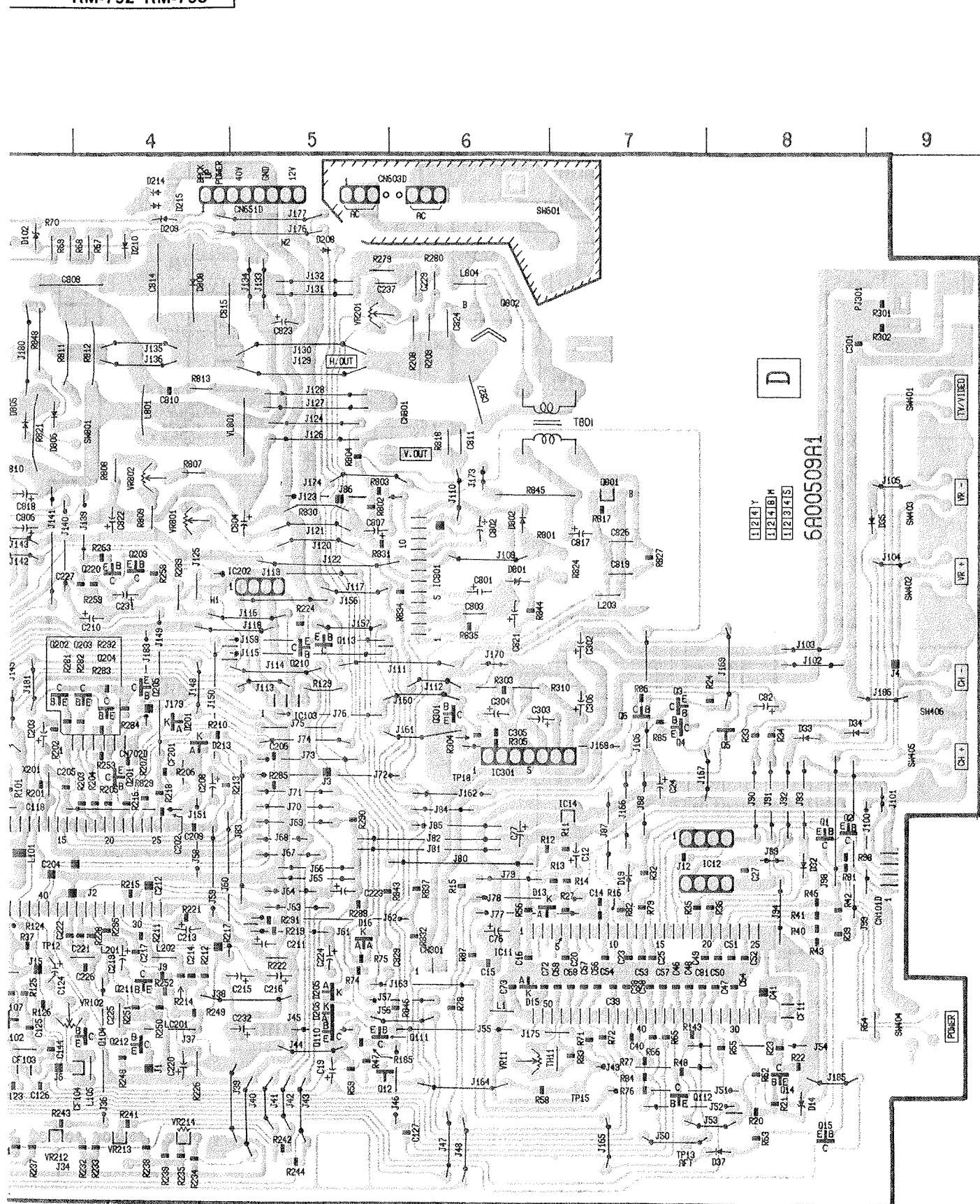
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

DTV, VIF, SIF, SYSTEM CONTROL,
VIDEO, CHROMA OUT, DEFLECTION,
HV OUT**- D BOARD -**

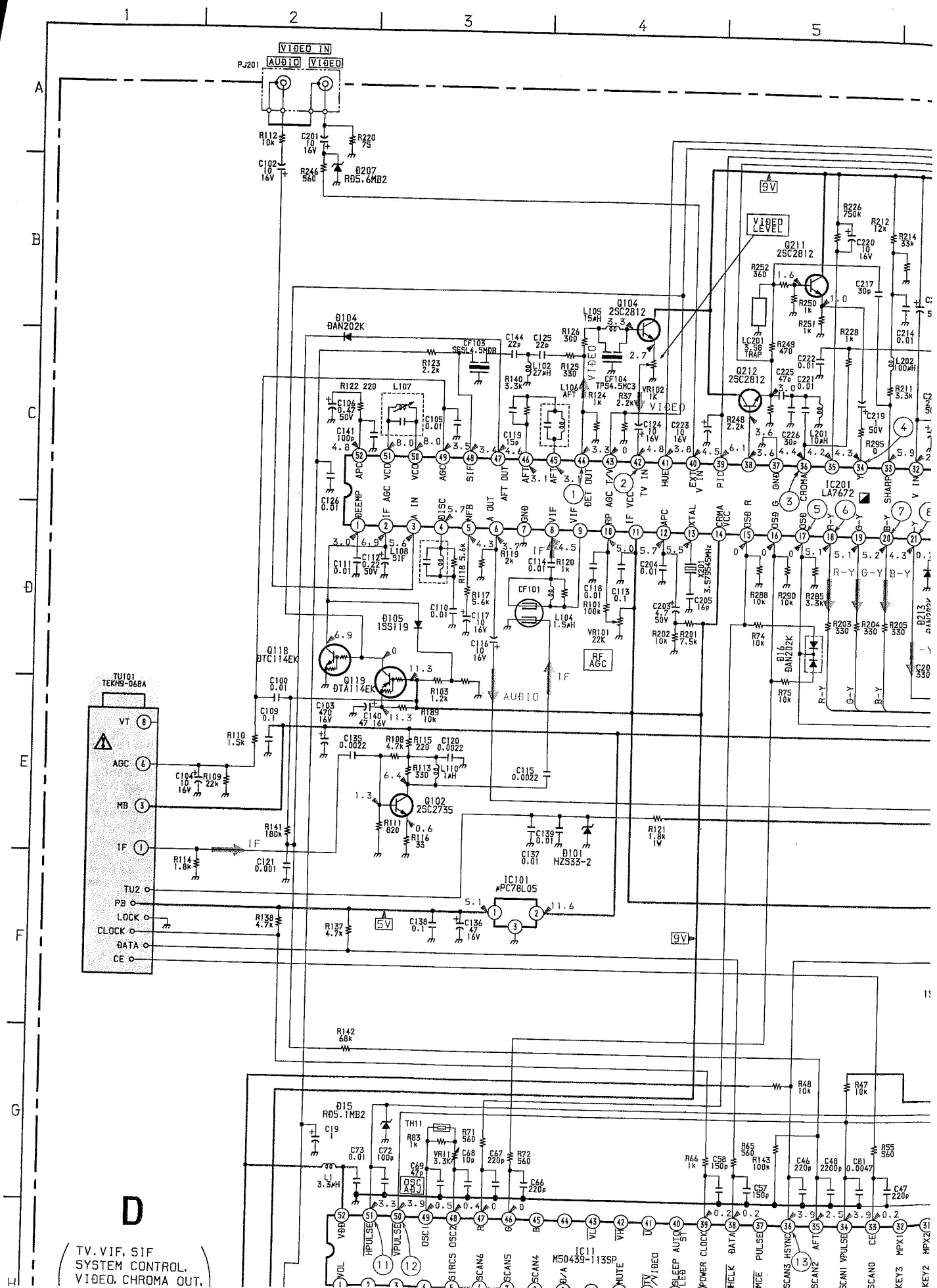
IC		Q220	C - 4
IC11	F - 7	Q301	D - 6
IC12	E - 7	Q801	C - 7
IC14	E - 7	Q802	B - 6
IC103	D - 5	Q803	B - 3
IC104	D - 2	DIODE	
IC105	E - 1		
IC201	E - 3	D13	E - 6
IC202	C - 5	D14	F - 8
IC301	D - 6	D15	F - 6
IC801	C - 6	D16	E - 5
TRANSISTOR		D17	G - 2
		D19	E - 7
Q1	E - 8	D32	E - 8
Q2	E - 8	D33	D - 8
Q3	D - 7	D34	D - 8
Q4	D - 7	D35	C - 8
Q5	D - 8	D36	G - 3
Q6	D - 7	D37	G - 8
Q12	F - 5	D101	F - 2
Q14	F - 8	D102	A - 3
Q15	G - 8	D201	D - 4
Q102	E - 2	D205	F - 5
Q103	D - 1	D206	F - 5
Q104	F - 4	D207	E - 1
Q105	F - 1	D209	A - 4
Q106	F - 1	D210	A - 4
Q107	F - 1	D213	D - 4
Q108	F - 2	D214	A - 4
Q109	F - 1	D215	A - 4
Q110	F - 5	D801	C - 6
Q111	F - 5	D802	C - 6
Q112	F - 7	D803	C - 2
Q113	D - 5	D804	C - 3
Q114	E - 2	D805	B - 3
Q115	D - 2	D806	B - 3
Q118	E - 2	D807	B - 2
Q119	E - 2	D808	A - 4
Q201	D - 4	D809	C - 3
Q202	D - 3	VARIABLE RESISTOR	
Q203	D - 3		
Q204	D - 4	VR11	F - 6
Q205	D - 4	VR101	D - 3
Q206	D - 2	VR102	F - 3
Q207	D - 1	VR201	B - 5
Q208	D - 1	VR211	G - 3
Q209	C - 4	VR801	C - 4
Q210	D - 5	VR802	C - 4
Q211	F - 4		
Q212	F - 4		

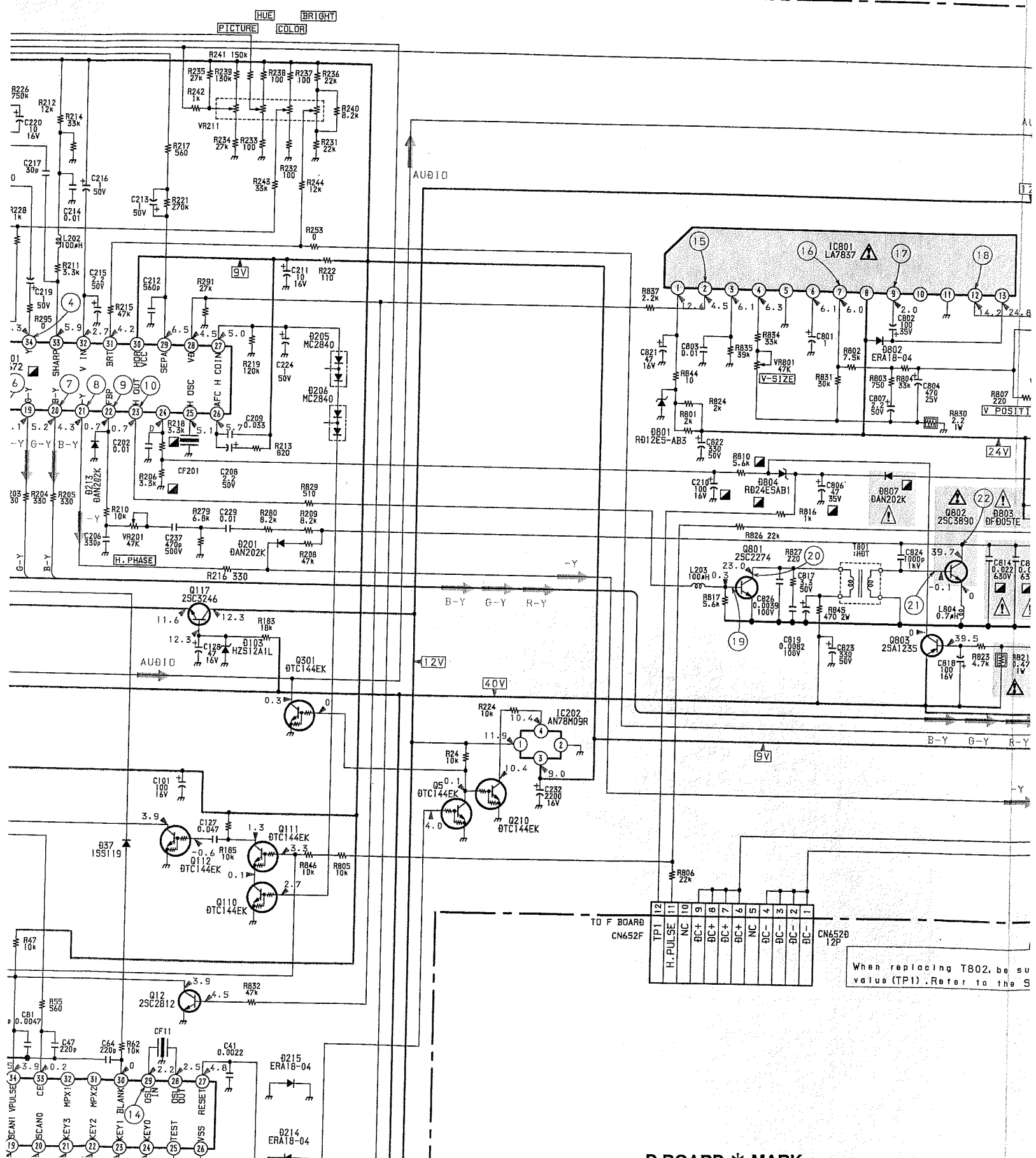




NOTE:


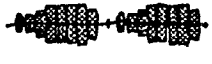




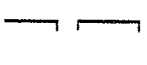






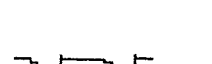


The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



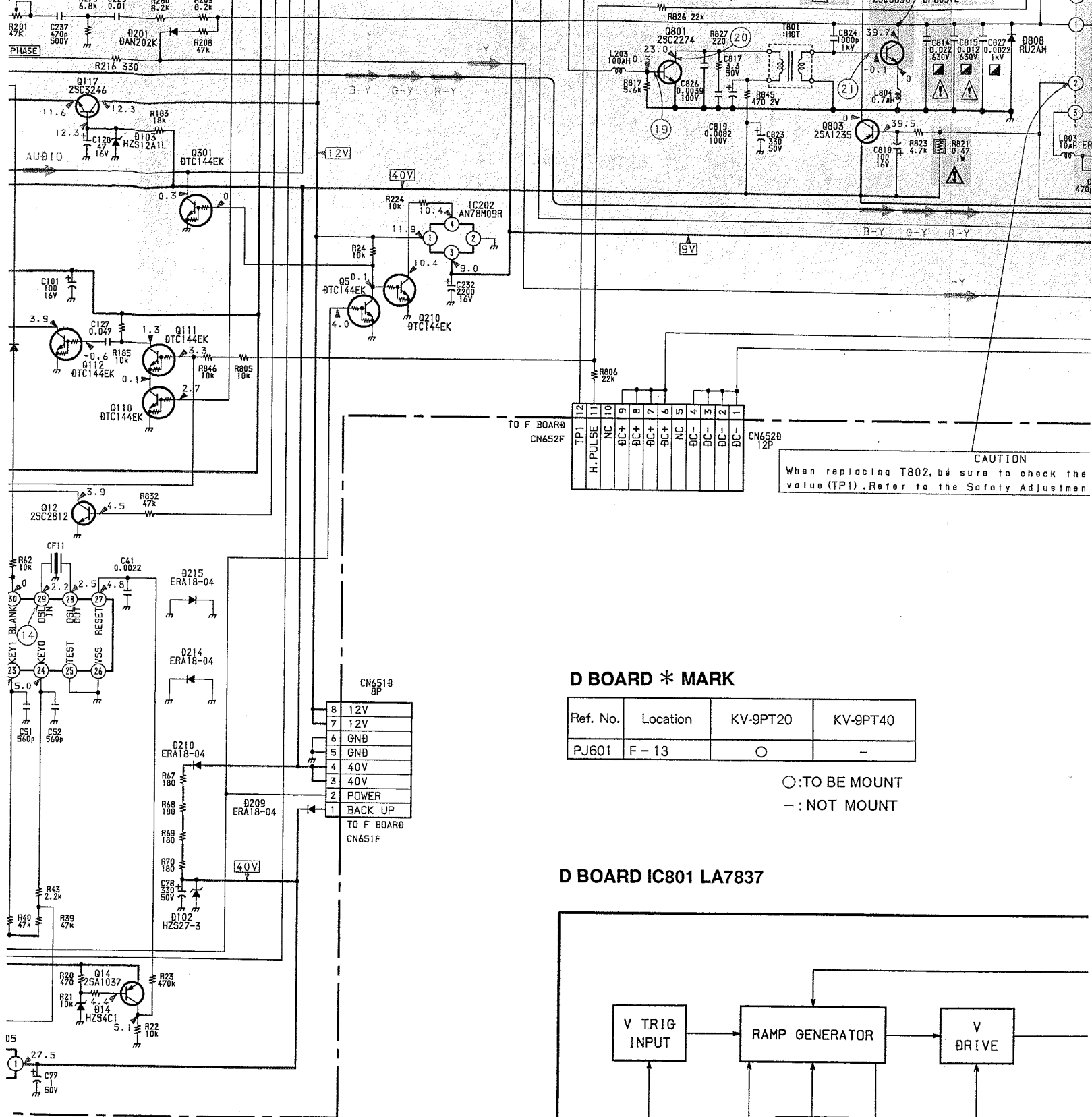


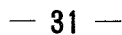
When replacing T802, be su
value (TP1). Refer to the S

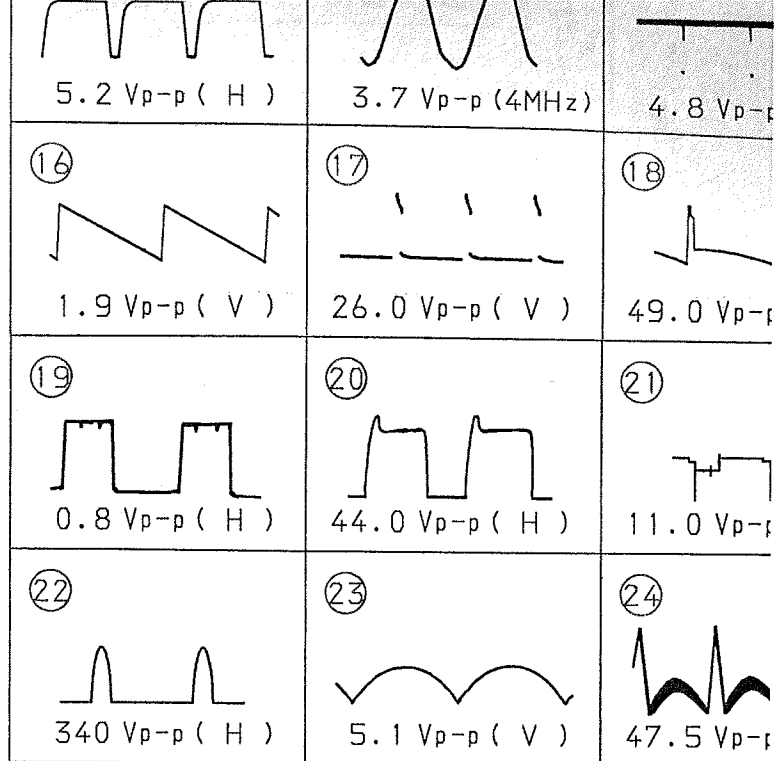
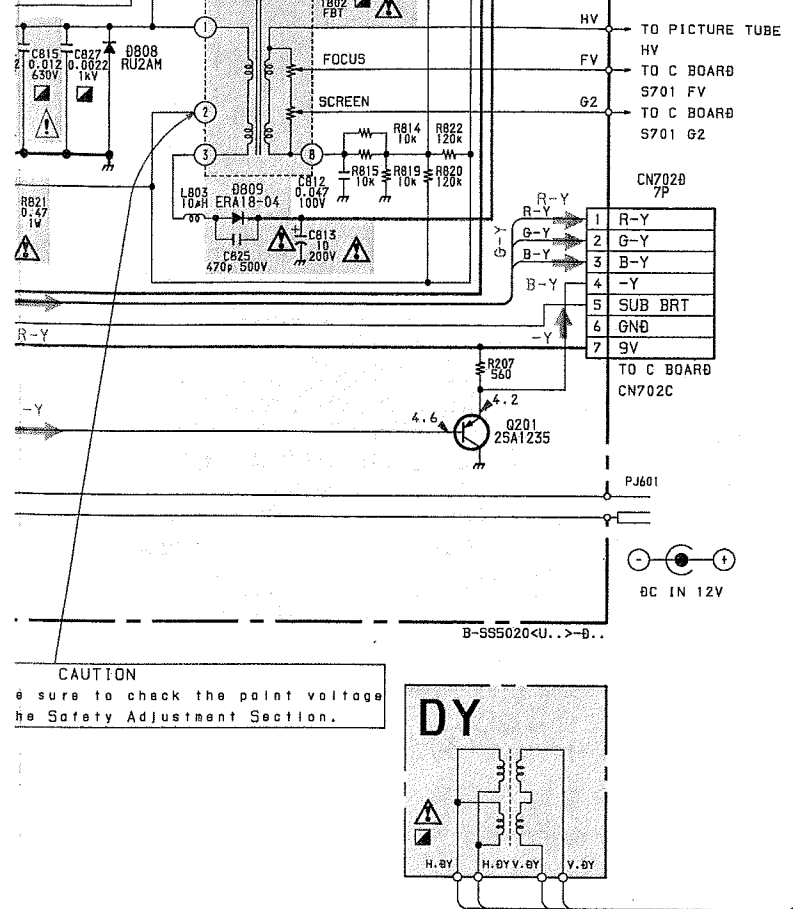
מחאה ↘ מחאה ח

 Vp-p (H)	③  0.15 Vp-p (H)
 Vp-p (H)	⑥  2.6 Vp-p (H)
 Vp-p (H)	⑨  10 Vp-p (H)
 Vp-p (H)	⑫  4.0 Vp-p (H)
 Vp-p (4MHz)	⑮  4.8 Vp-p (V)
 Vp-p (V)	⑱  49.0 Vp-p (V)
 Vp-p (H)	⑳  11.0 Vp-p (H)
 Vp-p (V)	㉔  47.5 Vp-p (H)

1	SYSTEM CONTROL
2	MEMORY
4	+5V REG
01	+5V REG
	VIE SIE DET AMP

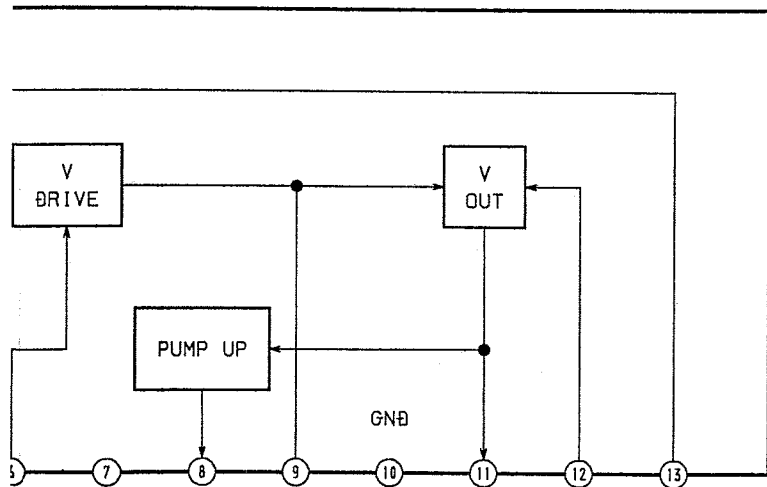


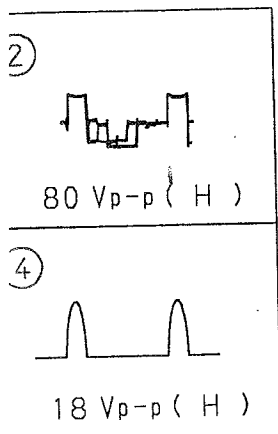
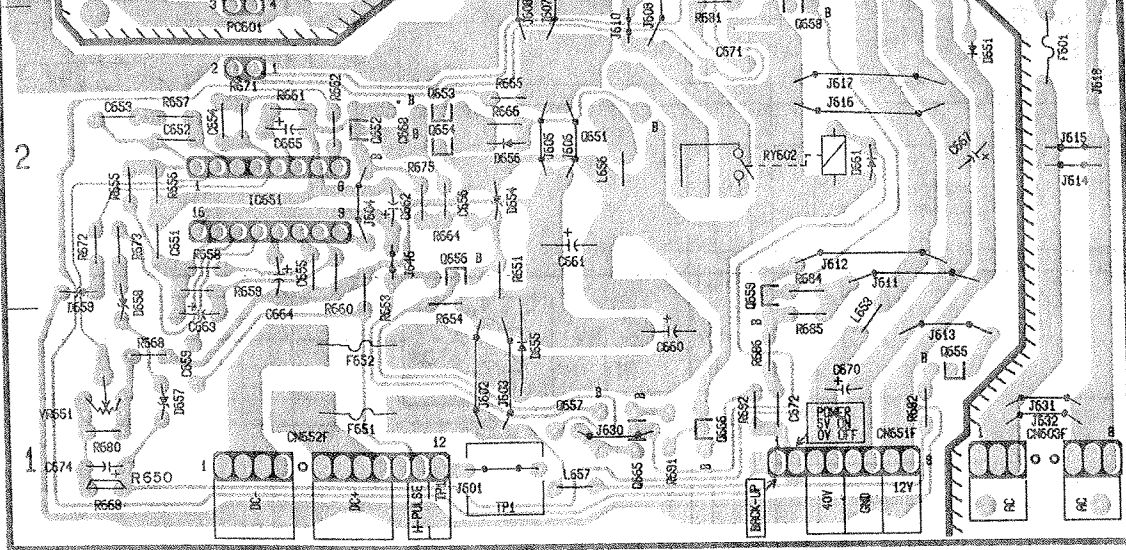
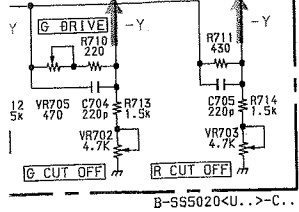




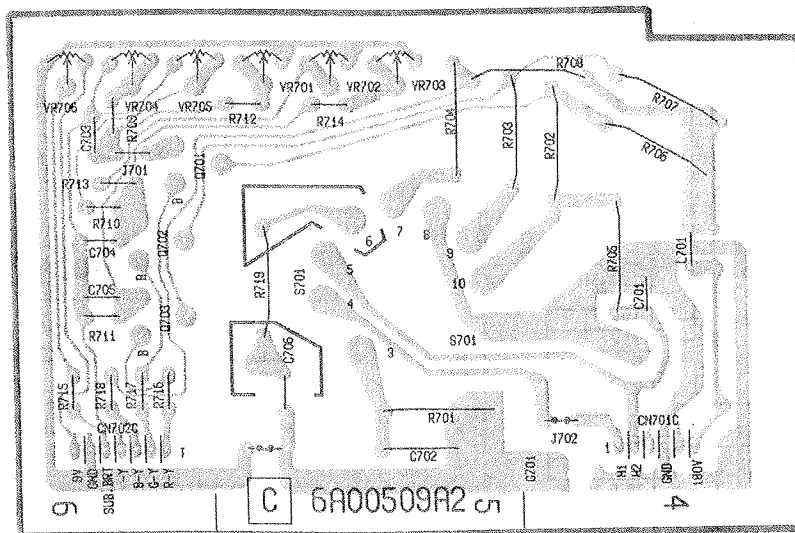
- D BOARD -

D13	VOL SW	IC11	SYSTEM CONTROL
D14	PROTECT	IC12	MEMORY
D15	H, CLAMP	IC14	+ 5V REG
D16	PROTECT	IC101	+ 5V REG
D19	SW	IC201	VIF, SIF, DET AMP, VIDEO, CHROMA DEFLECTION AMP
D32	SW		
D33	SW		
D34	SW	IC202	+ 9V REG
D35	SW	IC301	AUDIO OUT
D37	BLK SW	IC801	V OUT
D101	+ 30V REG		
D102	REG	Q2	LED DRIVE
D103	REG	Q5	CONTROL
D105	AGC SW	Q6	
D201	PROTECT	Q12	BUFFER
D205	PROTECT	Q14	RESET
D206	PROTECT	Q102	IF AMP
D207	PROTECT	Q104	VIDEO BUFFER
D209	BACK UP	Q110	BUFFER
D210	DC RECT	Q111	BUFFER
D213	PROTECT	Q112	BUFFER
D214	PROTECT	Q117	REG
D215	PROTECT	Q118	CONTROL
D801	+ 12V REG	Q119	CONTROL
D802	CLAMP	Q201	- Y BUFFER
D803	+ 24V RECT	Q209	ABL CURRENT
D804	CLAMP	Q210	CONTROL
D805	CLAMP	Q211	Y BUFFER
D806	CLAMP	Q212	VIDEO BUFFER
D807	RECT	Q220	ABL
D808	DUMPER	Q301	CONTROL SW
D809	180V RECT	Q801	H DRIVE
		Q802	H OUT
		Q803	CURRENT DEFLECTION

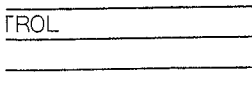
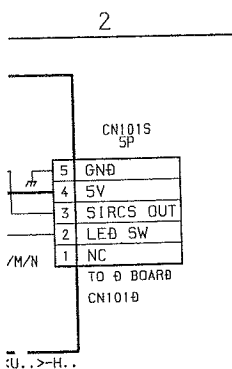
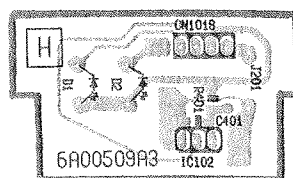


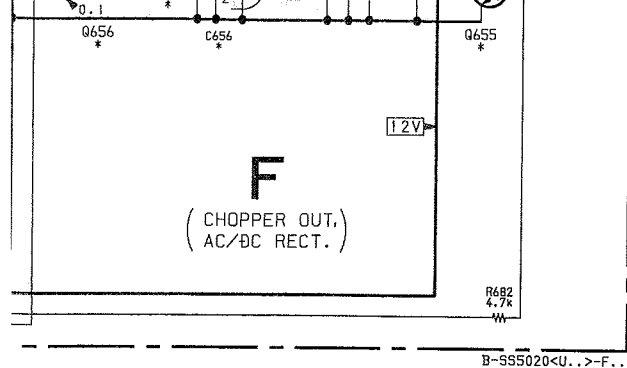


- C BOARD -



- H BOARD -

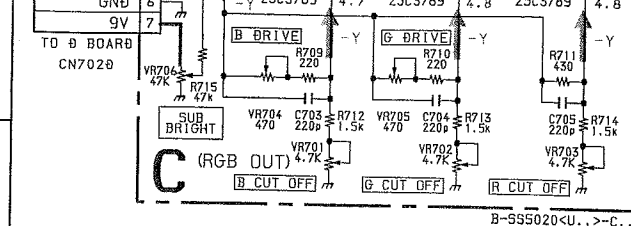
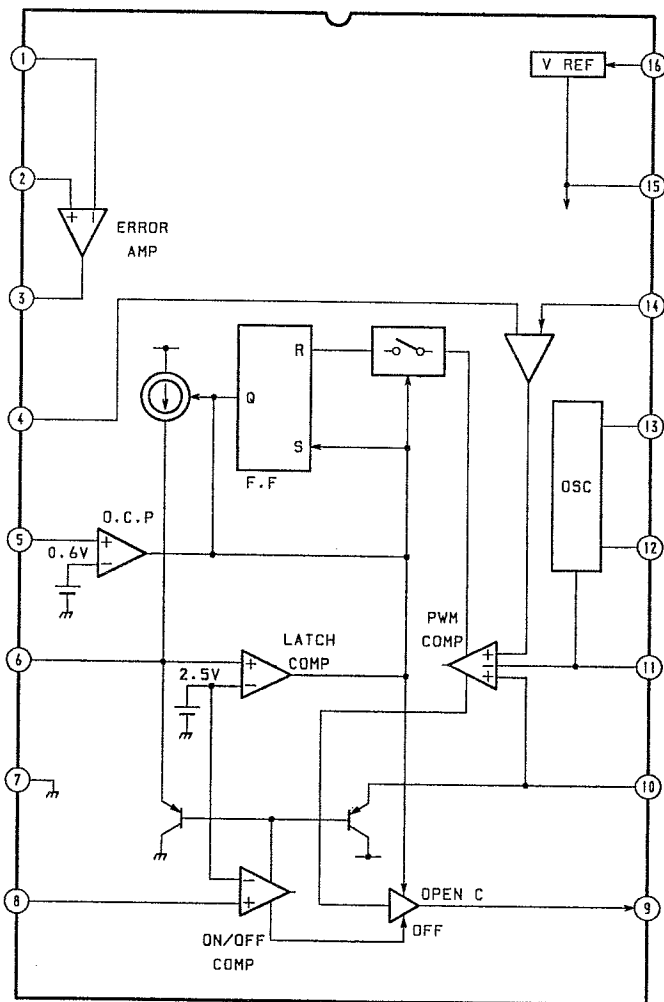




CAUTION (US MODEL ONLY)

This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other). When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

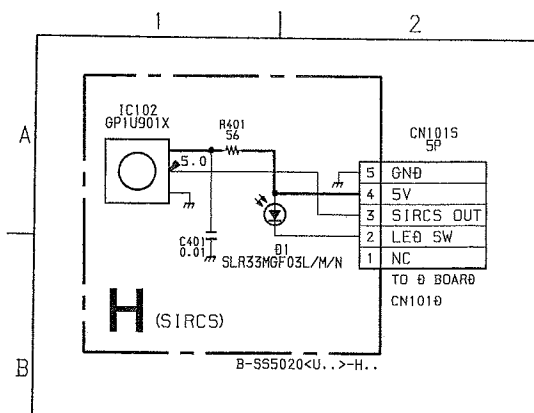
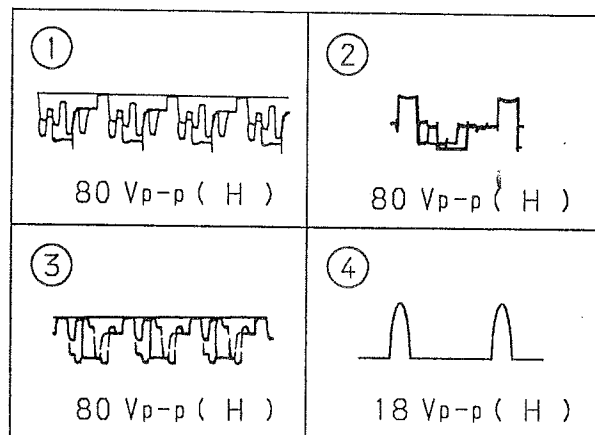
F BOARD IC651 FA5301P



C BOARD

Q701	B OUT
Q702	G OUT
D703	R OUT

• C BOARD WAVEFORMS



H BOARD

IC102	REMOTE CONTROL
D1	POWER

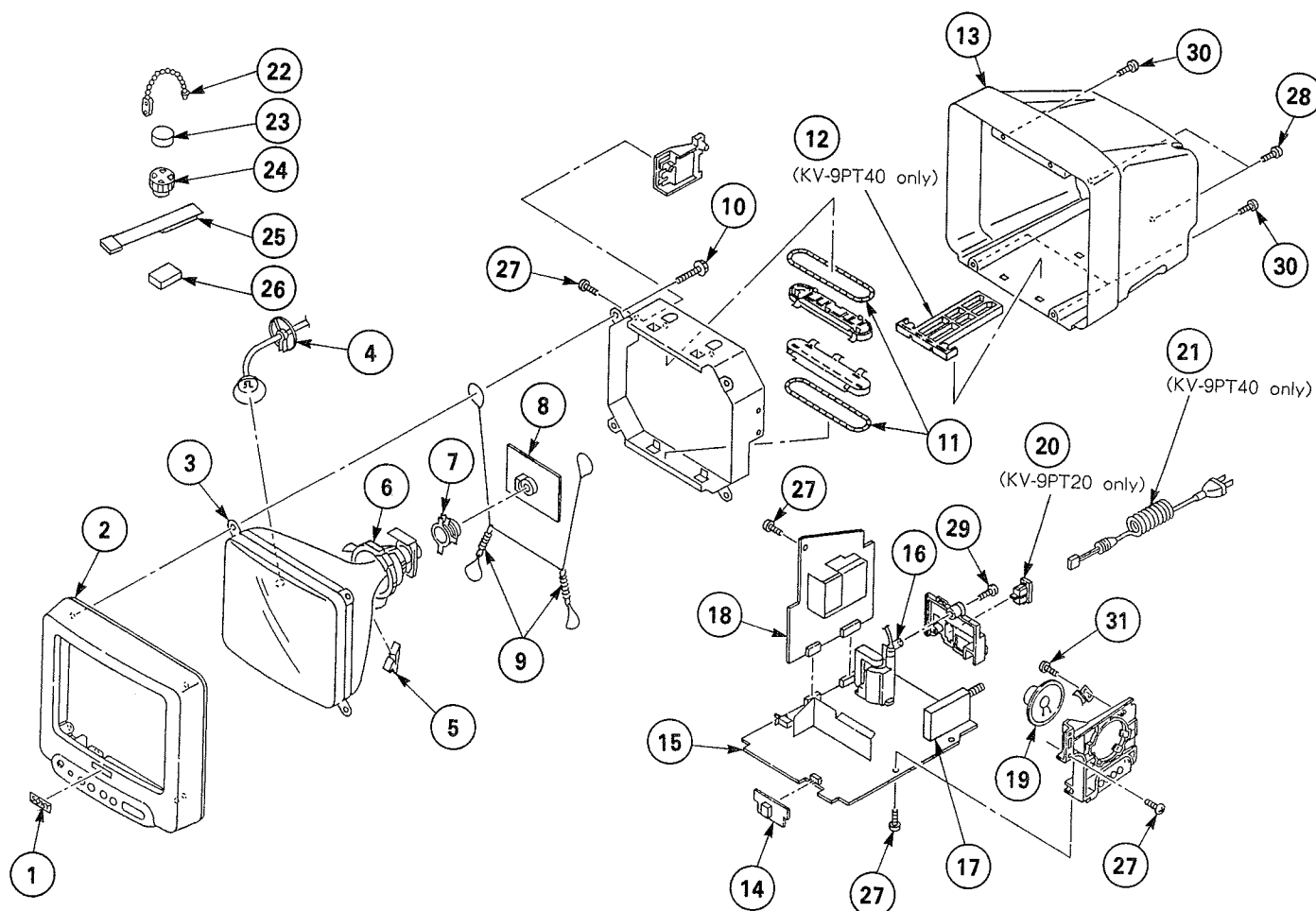
SECTION 7 EXPLODED VIEW

NOTE :

- Items with on part number and on description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark
1	3-897-070-01	EMBLEM SONY	
2	9-908-846-01	FRONT CASE (KV-9PT40 ONLY)	
2	9-908-847-01	FRONT CASE (KV-9PT20 ONLY)	
Δ 3	8-735-822-05	PICTURE TUBE (A23LDU10X)	
4	9-908-833-01	ANODE CLAMPER	
5	4-309-369-03	DY SPACER	
Δ 6	8-451-450-11	DY (Y10SLA)	
Δ 7	1-452-760-11	NA (NECK ASSY)	
* 8	9-908-853-01	C BOARD, COMPLETE	
9	9-908-829-01	SPRING	
10	9-904-615-01	TAPITE-P-HEX B 5X25	
Δ 11	9-909-035-01	D. G. C	
12	9-908-821-01	BOSS-BOTTOM-10 (KV-9PT40 ONLY)	
13	9-908-822-01	CASE REAR-10 (KV-9PT20 ONLY)	
13	9-908-823-01	CASE REAR-10 (KV-9PT40 ONLY)	
* 14	9-908-852-01	H BOARD, COMPLETE	
* 15	9-908-855-01	D BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
Δ 16	9-908-816-01	F. B. T	
17	9-908-831-01	TUNER TEKH9-068A	
* 18	9-908-857-01	F BOARD, COMPLETE (KV-9PT20 ONLY)	
* 18	9-908-858-01	F BOARD, COMPLETE (KV-9PT40 ONLY)	
19	9-906-157-01	SPEAKER	
20	9-901-595-01	AC INLET (KV-9PT20 ONLY)	
Δ 21	9-908-820-01	AC CORD-10 (KV-9PT40 ONLY)	
22	4-308-870-00	CLIP, LEAD WIRE	
23	1-452-032-00	MAGNET, DISK	
24	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
25	X-4308-815-8	PERMALLOY	
26	1-452-126-11	MAGNET	
27	9-908-830-01	TAPITE-P-BIND B 3X12	
28	9-901-017-01	TAPITE-P-BIND B 3X12	
29	9-906-149-01	TAPITE-P-BIND B 4X12	
30	9-901-016-01	TAPITE-P-BIND B 4X12	
31	9-906-371-01	TAPITE-P-BIND B 3X8	

SECTION 8

ELECTRICAL PARTS LIST

C

D

NOTE :

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

- MF : μ F, PF : μ μ F • MMH : mH, UH : μ H

- The components identified by Δ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref. No.	Part No.	Description	Remark		
*	9-908-853-01	C BOARD, COMPLETE	*****		
		< CAPACITOR >			
C701	9-904-547-01	CERAMIC 680PF	10%	2K	
C702	1-164-143-11	CERAMIC 0.01MF	10%	1KV	
C703	9-904-548-01	CERAMIC 220PF	10%	50V	
C704	9-904-548-01	CERAMIC 220PF	10%	50V	
C705	9-904-548-01	CERAMIC 220PF	10%	50V	
C706	9-904-546-01	CERAMIC 4700PF	10%	2KV	
C707	9-905-139-01	CERAMIC 470PF	10%	500V	
		< CONNECTOR >			
CN701C	1-546-708-11	CONNECTOR 6P			
CN702	1-546-709-11	CONNECTOR 7P			
		< PURAG >			
G701	9-905-071-01	PURAG			
		< COIL >			
L701	1-408-614-41	INDUCTOR 82UH			
		< TRANSISTOR >			
Q701	9-904-554-01	TRANSISTOR 2SC3789-YA			
Q702	9-904-554-01	TRANSISTOR 2SC3789-YA			
Q703	9-904-554-01	TRANSISTOR 2SC3789-YA			
		< RESISTOR >			
R701	9-900-914-01	SOLID 1M	10%	1/2W	
R702	9-900-915-01	SOLID 2.2K	10%	1/2W	
R703	9-900-915-01	SOLID 2.2K	10%	1/2W	
R704	9-900-915-01	SOLID 2.2K	10%	1/2W	
R705	9-900-916-01	SOLID 220K	10%	1/2W	
R706	9-906-733-01	R-METAL 15K	5%	2W	
R707	9-906-733-01	R-METAL 15K	5%	2W	
R708	9-906-733-01	R-METAL 15K	5%	2W	
R709	1-247-815-91	CARBON 220	5%	1/4W	
R710	1-247-815-91	CARBON 220	5%	1/4W	

Ref. No.	Part No.	Description	Remark		
R711	1-247-822-11	CARBON	430	5%	1/4W
R712	1-247-835-00	CARBON	1.5K	5%	1/4W
R713	1-247-835-00	CARBON	1.5K	5%	1/4W
R714	1-247-835-00	CARBON	1.5K	5%	1/4W
R715	1-247-871-00	CARBON	47K	5%	1/4W
R716	1-247-807-91	CARBON	100	5%	1/4W
R717	1-247-807-91	CARBON	100	5%	1/4W
R718	1-247-807-91	CARBON	100	5%	1/4W
R719	9-900-915-01	SOLID	2.2K	10%	1/2W
< SOKCET >					
△S701	1-526-958-71	PICTURE TUBE SOKCET			
< VARIABLE RESISTOR >					
VR701	1-238-546-11	R-SEMX 4.7K (B-BKG)			
VR702	1-238-546-11	R-SEMX 4.7K (G-BKG)			
VR703	1-238-546-11	R-SEMX 4.7K (R-BKG)			
VR704	1-238-543-11	R-SEMX 470 (B-DRIVE)			
VR705	1-238-543-11	R-SEMX 470 (G-DRIVE)			
VR706	9-904-551-01	R-SEMX 47K (SUB-BRIGHT)			

*	9-908-855-01	D BOARD, COMPLETE			

< CAPACITOR >					
C12	9-900-957-01	ELECT	2.2MF	20%	50V
C16	1-163-006-11	CERAMIC CHIP	560PF	50%	50V
C19	9-904-303-01	ELECT	1MF	20%	50V
C20	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C23	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C24	9-908-781-01	ELECT	22MF	20%	16V
C25	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C27	1-163-031-11	CERAMIC CHIP	0.01MF	10%	50V
C36	1-163-017-11	CERAMIC CHIP	4700PF	10%	50V
C41	1-163-051-00	CERAMIC CHIP	2200PF	10%	50V
C46	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C47	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C48	1-163-009-00	CERAMIC CHIP	1000PF	20%	50V
C49	1-163-006-11	CERAMIC CHIP	560PF	10%	50V

shading and mark Δ are critical for safety.
Replace only with part number specified.

une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

RM-792 RM-793

D

Ref. No.	Part No.	Description	Remark
C50	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C51	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C52	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C53	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C57	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C58	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C64	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C66	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C67	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C68	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C69	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C72	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C73	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C76	1-126-935-11	ELECT 470MF	20% 16V
C77	9-904-303-01	ELECT 1MF	20% 50V
C78	9-904-309-01	ELECT 330MF	20% 50V
C81	1-163-017-11	CERAMIC CHIP 4700PF	10% 50V
C101	9-905-153-01	ELECT 100MF	20% 16V
C102	9-906-559-01	ELECT 10MF	20% 16V
C103	9-905-153-01	ELECT 100MF	20% 16V
C104	9-906-559-01	ELECT 10MF	20% 16V
C105	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C106	9-904-306-01	ELECT 0.47MF	20% 50V
C108	1-164-161-11	CERAMIC CHIP 2200PF	20% 50V
C109	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C110	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C111	9-906-427-01	FILM 0.01MF	5% 50V
C112	9-908-788-01	C-TANTAL 0.22MF	10% 35V
C113	1-163-059-00	CERAMIC CHIP 0.01MF	10% 50V
C114	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C115	1-164-161-11	CERAMIC CHIP 2200PF	20% 50V
C116	9-906-559-01	ELECT 10MF	20% 16V
C117	9-906-559-01	ELECT 10MF	20% 16V
C118	9-906-427-01	FILM 0.01MF	5% 50V
C119	1-163-222-00	CERAMIC CHIP 10PF	0.050PF 50V
C120	1-164-161-11	CERAMIC CHIP 2200PF	10% 50V
C121	1-163-009-11	CERAMIC CHIP 1000PF	10% 50V
C124	9-906-559-01	ELECT 10MF	20% 16V
C125	1-163-235-00	CERAMIC CHIP 22PF	5% 50V
C126	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C127	9-901-465-01	CERAMIC CHIP 0.047MF	10% 50V
C128	1-126-803-11	ELECT 47MF	20% 16V
C135	1-164-161-11	CERAMIC CHIP 2200PF	20% 50V
C136	1-126-803-11	ELECT 47MF	20% 16V
C137	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C138	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C139	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C140	1-126-803-11	ELECT 47MF	20% 16V

Ref. No.	Part No.	Description	Remark
C144	1-163-235-00	CERAMIC CHIP 22PF	5% 50V
C201	9-906-559-01	ELECT 10MF	20% 16V
C202	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C203	9-904-305-01	ELECT 4.7MF	20% 50V
C204	1-163-059-00	CERAMIC CHIP 0.01MF	10% 50V
C205	1-163-232-00	CERAMIC CHIP 16PF	5% 50V
C206	9-904-313-01	CERAMIC 330PF	10% 50V
C208	9-900-957-01	ELECT 2.2MF	20% 50V
C209	9-900-948-01	CERAMIC CHIP 0.033MF	10% 50V
C210	9-905-153-01	ELECT 100MF	20% 16V
C211	9-906-559-01	ELECT 10MF	20% 16V
C212	1-163-004-11	CERAMIC CHIP 560PF	10% 50V
C213	9-904-303-01	ELECT 1MF	20% 50V
C214	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C215	9-900-957-01	ELECT 2.2MF	20% 50V
C216	9-904-303-01	ELECT 1MF	20% 50V
C217	1-163-238-01	CERAMIC CHIP 30PF	5% 50V
C219	9-904-303-01	ELECT 1MF	20% 50V
C220	9-906-559-01	ELECT 10MF	20% 16V
C221	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C222	1-163-031-11	CERAMIC CHIP 0.01MF	20% 50V
C223	9-906-559-01	ELECT 10MF	20% 16V
C224	9-904-303-01	ELECT 1MF	20% 50V
C225	9-904-314-01	CERAMIC 47PF	5% 50V
C226	1-163-238-01	CERAMIC CHIP 30PF	5% 50V
C229	1-102-129-00	CERAMIC 0.01MF	10% 50V
C231	9-900-957-01	ELECT 2.2MF	20% 50V
C232	9-904-296-01	ELECT 2200MF	20% 16V
C237	9-905-139-01	CERAMIC 470PF	10% 500V
C301	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C302	1-126-935-11	ELECT 470MF	20% 16V
C303	1-126-803-11	ELECT 47MF	20% 16V
C304	9-900-957-01	ELECT 2.2MF	20% 50V
C305	1-163-023-00	CERAMIC CHIP 0.015MF	20% 50V
C306	1-126-935-11	ELECT 470MF	20% 16V
C801	9-904-299-01	C-TANTAL 1MF	10% 25V
C802	9-901-491-01	ELECT 100MF	20% 35V
C803	9-906-427-01	FILM 0.01MF	5% 50V
C804	9-904-297-01	ELECT 470MF	20% 25V
C805	9-905-139-01	CERAMIC 470PF	10% 500V
C806	9-904-300-01	ELECT 47MF	20% 35V
C807	9-900-957-01	ELECT 2.2MF	20% 50V
C808	9-904-323-01	FILM 3.3MF	5% 100V
C810	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C811	9-904-303-01	FILM 0.033MF	5% 50V
C812	1-130-857-00	FILM 0.047MF	5% 100V
△C813	9-904-324-01	ELECT 10MF	20% 200V
△C814	9-907-486-01	FILM 0.022MF	5% 630V

Ref. No.	Part No.	Description	Remark
Δ C815	9-908-784-01	FILM 0.012MF 5%	630V
C817	9-909-027-01	ELECT 3.3MF 20%	50V
C818	1-126-375-11	ELECT 100MF 20%	16V
C819	9-908-786-01	FILM 8200PF 5%	100V
C821	1-126-803-11	ELECT 47MF 20%	16V
C822	9-904-309-01	ELECT 330MF 20%	50V
C823	9-904-309-01	ELECT 330MF 20%	50V
C824	9-909-022-01	CERAMIC 1000PF 10%	1KV
Δ C825	9-905-139-01	CERAMIC 470PF 10%	500V
C826	9-904-322-01	FILM 3900PF 5%	100V
C827	9-906-441-01	CERAMIC 2200PF 10%	1KV

< FILTER >

CF11	9-906-331-01	CERA-LOCK	CST4.00MGW-TF01
CF101	9-901-367-01	FILTER	SAF45MB70Z
CF103	1-577-559-11	FILTER	SFSL4.5MDB
CF104	9-900-842-01	FILTER	TPS4.5MC3
CF201	9-900-933-01	CERA-LOCK	CSB503F5

< CONNECTOR >

CN101D	9-908-815-01	CONNECTOR	
CN301	1-564-704-11	CONNECTOR	2P
CN651D	9-904-360-01	CONNECTOR	
CN652	9-904-361-01	CONNECTOR	
CN701D	1-564-708-11	CONNECTOR	6P
CN702D	1-564-709-11	CONNECTOR	7P
CN801	9-909-032-01	CONNECTOR	

< DIODE >

D13	8-719-914-43	CHIP-DIODE	DAN202K
D14	9-908-789-01	ZENER DIODE	HZS4C1-TD
D15	8-719-105-82	D-ZENER	RD5.1M-B2
D16	8-719-914-43	DIODE	DAN202K
D17	9-904-343-01	D-ZENER	RD10ES-AB
D18	9-904-343-01	D-ZENER	RD10ES-AB
D19	9-905-145-01	DIODE	1SS119
D27	8-719-105-82	D-ZENER	RD5.1M-B2
D32	9-905-145-01	DIODE	1SS119
D33	9-905-145-01	DIODE	1SS119
D34	9-905-145-01	DIODE	1SS119
D35	9-905-145-01	DIODE	1SS119
D37	9-905-145-01	DIODE	1SS119
D101	9-904-457-01	D-ZENER	HZS33-2-TD
D102	9-908-790-01	D-ZENER	HZS27-3-TD
D103	8-719-933-73	D-ZENER	DR25387T1
D201	9-905-145-01	DIODE	1SS119
D205	9-906-605-01	DIODE	MC2840-T12-1

Ref. No.	Part No.	Description	Remark
D206	9-906-605-01	DIODE	MC2840-T12-1
D207	8-719-105-91	D-ZENER	RD5.6M-B2
D209	9-900-931-01	DIODE	ERA18-04V3
D210	9-900-931-01	DIODE	ERA18-04V3
D213	8-719-914-43	DIODE	DAN202K
D214	9-900-931-01	DIODE	ERA18-04V3
D215	9-900-931-01	DIODE	ERA18-04V3
D801	9-904-341-01	D-ZENER	RD12ES-AB3-T1
D802	9-900-931-01	DIODE	ERA18-04V3
Δ D803	9-900-929-01	DIODE	DFD05T-BT
D804	9-904-344-01	D-ZENER	RD24ES-AB1
D805	9-900-931-01	DIODE	ERA18-04V3

D806	9-900-931-01	DIODE	ERA18-04V3
Δ D807	8-719-914-43	DIODE	DAN202K
D808	9-904-353-01	DIODE	RU2AM
Δ D809	9-900-931-01	DIODE	ERA18-04V3

< IC >

IC11	9-908-794-01	IC	M50439-411 SP
IC12	9-908-796-01	IC	BR93LC46A
IC14	8-759-634-62	IC	M5278D05
IC101	8-759-105-33	IC	NJM78L05A
IC103	9-906-318-01	IC	AN78M09R
IC201	9-904-656-01	IC	LA7672A
IC202	9-906-318-01	IC	AN78M09R
IC301	8-759-101-77	IC	uPC1241H
Δ IC801	8-759-822-02	IC	LA7837

< RESISTOR >

J1	1-216-296-00	CHIP-J	0	5%	1/8W
J2	1-216-296-00	CHIP-J	0	5%	1/8W
J3	1-216-296-00	CHIP-J	0	5%	1/8W
J4	1-216-296-00	CHIP-J	0	5%	1/8W
J5	1-216-296-00	CHIP-J	0	5%	1/8W
J6	1-216-296-00	CHIP-J	0	5%	1/8W
J7	9-900-863-01	CHIP-J	0	5%	1/10W
J8	9-900-863-01	CHIP-J	0	5%	1/10W
J9	9-900-863-01	CHIP-J	0	5%	1/10W
J12	9-900-863-01	CHIP-J	0	5%	1/10W
J14	9-900-863-01	CHIP-J	0	5%	1/10W
J15	1-216-296-00	CHIP-J	0	5%	1/8W
J86	1-216-296-00	CHIP-J	0	5%	1/8W
J159	9-900-863-01	CHIP-J	0	5%	1/10W

< COIL >

L1	1-408-403-00	INDUCTOR	3.3uH		
L101	1-216-296-00	CHIP-J	0	5%	1/8W
L102	9-908-806-01	INDUCTOR	27uH		
L104	9-908-804-01	CHIP-COIL			

shading and mark Δ are critical for safety.
Replace only with part number specified.

une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

RM-792 RM-793 3

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Ref. No.	Part No.	Description	Remark
L105	9-908-918-01	INDUCTOR 15uH	
L106	9-908-808-01	COIL-AFT	
L107	9-908-811-01	COIL-VCO	
L108	9-900-835-01	COIL-SIF	
L109	1-216-296-00	CHIP-J 0 5% 1/8W	
L110	9-905-005-01	CHIP-COIL	
L201	1-410-971-31	INDUCTOR 10uH	
L202	9-904-338-01	COIL	
L203	9-904-338-01	COIL	
Δ L801	9-904-384-01	COIL-LINEAR	
L802	1-408-403-00	INDUCTOR 3.3uH	
L803	1-410-971-31	INDUCTOR 10uH	
L804	9-904-349-01	COIL-CHOKE	
< FILTER >			
LC201	9-904-358-01	FILTER STR331365S3A-4005-11	
< JACK >			
PJ201	9-908-827-01	PIN-JACK	
PJ301	9-907-509-01	EARPHONE-JACK	
PJ601	1-573-521-11	DC-JACK (KV-9PT20 ONLY)	
< TRANSISTOR >			
Q2	8-729-901-01	TRANSISTOR DTC144EK	
Q5	8-729-901-01	TRANSISTOR DTC144EK	
Q6	8-729-901-04	TRANSISTOR DTC114EK	
Q12	8-729-820-24	TRANSISTOR 2SC2812 TB	
Q14	8-729-902-21	TRANSISTOR 2SA1037K R-T146 TP	
Q15	8-729-902-21	TRANSISTOR 2SA1037K R-T146 TP	
Q102	9-901-134-01	TRANSISTOR 2SC2735J-TL	
Q104	8-729-820-84	TRANSISTOR 2SC2812 TB	
Q110	8-729-901-01	TRANSISTOR DTC144EK	
Q111	8-729-901-01	TRANSISTOR DTC144EK	
Q112	8-729-901-01	TRANSISTOR DTC144EK	
Q113	8-729-901-01	TRANSISTOR DTC144EK	
Q117	9-906-466-01	TRANSISTOR 2SC3246H	
Q118	8-729-901-01	TRANSISTOR DTC144EK	
Q119	8-729-901-04	TRANSISTOR DTC114EK	
Q201	9-900-843-01	TRANSISTOR 2SA1235-T12-A-1E	
Q209	8-729-902-21	TRANSISTOR 2SA1037K R-T146 TP	
Q210	8-729-901-01	TRANSISTOR DTC144EK	
Q211	8-729-820-84	TRANSISTOR 2SC2812 TB	
Q212	8-729-820-84	TRANSISTOR 2SC2812 TB	
Q220	8-729-820-84	TRANSISTOR 2SC2812 TB	
Q301	8-729-901-01	TRANSISTOR DTC144EK	
Q801	9-904-366-01	TRANSISTOR 2SC2274K-AA-E	
Δ Q802	9-908-801-01	TRANSISTOR 2SC3890	
Q803	9-900-843-01	TRANSISTOR 2SA1235-T12-A-1E	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R11	1-126-067-00	CHIP-R 5.6K 5% 1/10W	
R12	1-126-059-00	CHIP-R 2.7K 5% 1/10W	
R13	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R14	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R15	1-216-049-00	CHIP-R 1K 5% 1/10W	
R20	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R21	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R22	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R23	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R24	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R27	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R32	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R33	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R34	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R35	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R36	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R37	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R39	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R40	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R41	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R42	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R43	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R46	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R47	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R48	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R55	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R56	1-216-182-00	METAL GLAZE 220 5% 1/10W	
R58	1-216-072-00	METAL GLAZE 9.1K 5% 1/10W	
R59	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R62	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R63	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R64	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R65	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R66	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R67	1-247-813-00	CARBON 180 5% 1/4W	
R68	1-247-813-00	CARBON 180 5% 1/4W	
R69	1-247-813-00	CARBON 180 5% 1/4W	
R70	1-247-813-00	CARBON 180 5% 1/4W	
R71	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R72	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R74	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R75	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R82	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R83	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R98	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R101	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R108	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	

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Ref. No.	Part No.	Description	Remark
R109	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R110	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R111	1-216-047-00	METAL GLAZE	820 5% 1/10W
R112	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R113	1-216-037-00	METAL GLAZE	330 5% 1/10W
R114	1-216-025-00	METAL GLAZE	100 5% 1/10W
R115	1-216-186-00	METAL GLAZE	330 5% 1/8W
R116	1-216-013-00	METAL GLAZE	33 5% 1/10W
R117	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R118	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R119	1-216-056-00	METAL GLAZE	2K 5% 1/10W
R120	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R121	9-908-773-01	METAL	1.8K 5% 1W
R122	1-216-025-00	METAL GLAZE	100 5% 1/10W
R123	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R124	1-216-045-00	METAL GLAZE	680 5% 1/10W
R125	1-216-037-00	METAL GLAZE	330 5% 1/10W
R126	1-216-036-00	METAL GLAZE	300 5% 1/10W
R137	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R138	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R140	1-216-034-00	METAL GLAZE	240 5% 1/10W
R141	1-216-111-11	METAL GLAZE	390K 5% 1/10W
R142	1-216-100-00	METAL GLAZE	130K 5% 1/10W
R143	1-216-104-00	METAL GLAZE	200K 5% 1/10W
R183	1-216-097-00	METAL GLAZE	18K 5% 1/10W
R185	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R189	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R201	1-216-070-00	METAL GLAZE	7.5K 5% 1/10W
R202	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R203	1-216-037-00	METAL GLAZE	330 5% 1/10W
R204	1-216-037-00	METAL GLAZE	330 5% 1/10W
R205	1-216-037-00	METAL GLAZE	330 5% 1/10W
R206	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R207	1-216-043-00	METAL GLAZE	560 5% 1/10W
R208	1-247-871-00	CARBON	47K 5% 1/4W
R209	1-247-853-00	CARBON	8.2K 5% 1/4W
R210	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R211	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R212	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R213	1-216-047-00	METAL GLAZE	820 5% 1/10W
R214	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R215	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R216	1-216-037-00	METAL GLAZE	330 5% 1/10W
R217	1-216-192-00	METAL GLAZE	560 5% 1/8W
R218	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R219	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R220	1-216-022-00	METAL GLAZE	75 5% 1/10W

Ref. No.	Part No.	Description	Remark
R221	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R222	1-247-808-00	CARBON	110 5% 1/4W
R224	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R226	1-247-900-11	CARBON	750K 5% 1/4W
R228	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R231	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R232	1-216-025-00	METAL GLAZE	100 5% 1/10W
R233	1-216-025-00	METAL GLAZE	100 5% 1/10W
R234	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R235	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R236	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R237	1-216-025-00	METAL GLAZE	100 5% 1/10W
R238	1-216-025-00	METAL GLAZE	100 5% 1/10W
R239	1-216-100-00	METAL GLAZE	130K 5% 1/10W
R240	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R241	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R242	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R243	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R244	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R246	1-216-043-00	METAL GLAZE	560 5% 1/10W
R248	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R249	1-216-041-00	METAL GLAZE	470 5% 1/10W
R250	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R251	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R252	1-216-038-00	METAL GLAZE	360 5% 1/10W
R253	9-900-863-01	CHIP-J	0 5% 1/10W
R258	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R259	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R260	1-216-099-00	METAL GLAZE	120K 5% 1/10W
R263	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
R279	1-247-851-00	CARBON	6.8K 5% 1/4W
R280	1-247-853-00	CARBON	8.2K 5% 1/4W
R285	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R288	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R289	1-247-846-11	CARBON	4.3K 5% 1/4W
R290	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R291	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R295	9-900-863-00	CHIP-J	0 5% 1/10W
R301	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R302	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R303	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R304	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R305	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
Δ R310	9-908-772-01	R-FUSING	4.7 5% 1W
R801	1-247-838-00	R-CARBON	2K 5% 1/4W
R802	1-216-070-00	METAL GLAZE	7.5K 5% 1/10W
R803	1-216-046-00	METAL GLAZE	750 5% 1/10W
R804	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R805	1-216-222-00	METAL GLAZE	10K 5% 1/8W

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une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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Ref. No.	Part No.	Description			Remark
R806	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R807	1-247-815-91	R-CARBON	220	5%	1/4W
R808	1-247-815-91	R-CARBON	220	5%	1/4W
R809	1-247-819-00	R-CARBON	330	5%	1/4W
R810	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
Δ R811	9-905-099-01	R-FUSE	27	5%	1/2W
Δ R812	9-901-208-01	R-FUSE	100	5%	1/2W
R813	1-249-417-11	R-CARBON	1K	5%	1/4W
R814	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R815	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R816	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R817	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R818	1-247-827-00	R-CARBON	680	5%	1/4W
R819	9-900-857-01	CHIP-R	10K	1%	1/10W
R820	1-216-100-00	METAL GLAZE	130K	5%	1/10W
Δ R821	9-904-286-01	R-FUSING	4.7	5%	1W
R822	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R824	1-247-838-00	CARBON	2K	5%	1/4W
R826	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R827	1-216-182-00	METAL GLAZE	220	5%	1/10W
R829	1-216-042-00	METAL GLAZE	510	5%	1/10W
R830	9-904-288-01	R-METAL	2.2	5%	1W
R831	1-216-084-00	METAL GLAZE	30K	5%	1/10W
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W
Δ R833	9-908-771-01	R-FUSING	1.5	5%	1W
R834	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R835	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R836	1-216-037-00	METAL GLAZE	330	5%	1/10W
R837	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R844	1-216-001-00	METAL GLAZE	10	5%	1/10W
R845	9-904-289-01	R-METAL	470	5%	2W
R846	1-216-073-00	METAL GLAZE	10K	5%	1/10W
Δ R848	9-905-099-01	R-FUSING	27	5%	1/2W

< SWITCH >

SW401	9-909-033-01	SWITCH (TV/VIDEO)
SW402	9-909-033-01	SWITCH (VOL(+))
SW403	9-909-033-01	SWITCH (VOL(-))
SW404	9-909-033-01	SWITCH (POWER)
SW405	9-909-033-01	SWITCH (Ch(+))
SW406	9-909-033-01	SWITCH (Ch(-))
SW801	9-900-935-01	SWITCH-LEVER (H-SHIFT)

< TRANSFORMER >

T801	9-904-347-01	HDT
Δ T802	9-908-816-01	F. B. T

Ref. No.	Part No.	Description	Remark
< THERMISTOR >			
TH11	9-904-465-01	NTH	NTH5D102LAT2
< TUNER >			
TU101	9-908-831-01	TUNER	TEKH9-068A
< COIL >			
△VL801	9-908-809-01	COIL-SIZE (H-SIZE)	
< VARIABLE RESISTOR >			
VR11	1-238-014-11	R-SEMX 3.3K (CHARACTER POSITION)	
VR101	9-908-800-01	R-SEMX 22K (RF-AGC)	
VR102	9-908-799-01	R-SEMX 1K (VIDEO LEVEL)	
VR201	1-238-019-11	R-SEMX 47K (H-PHASE)	
VR211	9-908-803-01	VR-BLOCK (PICTURE, HUE, COLOR, BRIGHT)	
VR801	1-238-019-11	R-SEMX 47K (V-SIZE)	
VR802	9-904-339-01	R-SEMX 2.2K (V-POS)	
< CRYSTAL >			
X201	9-904-359-01	OSCILLATOR	

*	9-908-857-01	F BOARD, COMPLETE	(KV-9PT20 ONLY)

*	9-908-858-01	F BOARD, COMPLETE	(KV-9PT40 ONLY)

< CAPACITOR >			
△C601	1-136-548-11	FILM	0.1MF 20% 250V
△C602	9-904-489-01	CERAMIC	0.01MF 400V
△C603	1-161-742-00	CERAMIC	2200PF 10% 400V
△C604	1-161-742-00	CERAMIC	2200PF 10% 400V
△C605	1-161-742-00	CERAMIC	2200PF 10% 400V
△C606	1-161-742-00	CERAMIC	2200PF 10% 400V
C607	1-164-143-11	CERAMIC	1000P 10% 1KV
△C608	1-125-660-11	ELECT	180MF 20% 200V
C611	1-137-366-91	FILM	2200PF 5% 50V
C612	9-909-023-01	ELECT	4.7MF 20% 35V
C614	9-906-447-01	CERAMIC	0.1MF 10% 50V
△C615	9-908-777-01	CERAMIC	470PF 10% 1KV
△C617	9-906-426-01	CERAMIC	470PF 10% 1KV
C618	9-909-022-01	FILM	1000PF 10% 1KV
△C619	9-909-019-01	CERAMIC	220PF 10% 1KV
△C620	9-909-019-01	CERAMIC	220PF 10% 1KV
C621	9-909-019-01	CERAMIC	220PF 10% 1KV
C622	9-909-019-01	CERAMIC	220PF 10% 1KV

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Ref. No.	Part No.	Description	Remark
C651	1-102-129-00	CERAMIC 0.01MF 10% 50V (KV-9PT20 ONLY)	
C652	1-102-129-00	CERAMIC 0.01MF 10% 50V (KV-9PT20 ONLY)	
C653	9-906-585-01	FILM 4700PF 5% 50V (KV-9PT20 ONLY)	
C654	1-137-366-91	FILM 2200PF 5% 50V (KV-9PT20 ONLY)	
C655	9-904-498-01	FILM 1000PF 5% 50V (KV-9PT20 ONLY)	
C656	9-906-447-01	CERAMIC 0.1MF 10% 50V (KV-9PT20 ONLY)	
C657	9-906-441-01	CERAMIC 2200PF 10% 1KV	
C658	9-909-022-01	CERAMIC 1000PF 10% 1KV	
C659	9-904-495-01	CERAMIC 100PF 5% 50V (KV-9PT20 ONLY)	
C660	9-904-494-01	ELECT 220MF 20% 35V (KV-9PT20 ONLY)	
C661	9-904-494-01	ELECT 220MF 20% 35V (KV-9PT20 ONLY)	
C662	9-904-501-01	ELECT 10MF 20% 50V (KV-9PT20 ONLY)	
C663	9-904-501-01	ELECT 10MF 20% 50V (KV-9PT20 ONLY)	
C664	9-901-482-01	ELECT 1MF 20% 50V (KV-9PT20 ONLY)	
C665	9-909-024-01	ELECT 4.7MF 20% 50V (KV-9PT20 ONLY)	
C666	9-908-780-01	ELECT 680MF 20% 16V	
C667	9-908-782-01	ELECT 1000MF 20% 16V	
C669	9-908-783-01	ELECT 560MF 20% 50V	
C670	9-904-503-01	ELECT 330MF 20% 50V	
C671	1-137-366-91	FILM 2200PF 5% 50V	
C672	1-124-006-11	ELECT 10M 20% 16V	
C673	9-906-447-01	CERAMIC 0.1MF 10% 50V	
C674	9-901-482-01	ELECT 1MF 20% 50V (KV-9PT20 ONLY)	
C675	9-906-426-01	CERAMIC 470PF 10% 1KV	
C677	9-909-020-01	CERAMIC 330PF 10% 1KV	
C678	9-909-021-01	CERAMIC 680PF 10% 1KV	
< CONNECTOR >			
Δ CN601	9-909-031-01	CONNECTOR B2P3-VH (KV-9PT20 ONLY)	
CN602	9-909-030-01	CONNECTOR RTB-1.5-2V	
CN603	9-904-360-01	CONNECTOR 52120-0820	
CN651	9-904-467-01	CONNECTOR 52120-0820	
CN652	9-904-468-01	CONNECTOR 52120-1220	

Ref. No.	Part No.	Description	Remark
< DIODE >			
Δ D601	8-719-510-34	D-BRIDGE D2SBA40	
D602	9-900-931-01	DIODE ERA18-04V3	
Δ D603	8-719-300-33	DIODE RU3AM	
D604	9-900-931-01	DIODE ERA18-04V3	
D605	9-900-931-01	DIODE ERA18-04V3	
D651	9-900-931-01	DIODE ERA18-04V3	
D652	1-809-011-11	DIODE RL22 LF-B2	
D653	1-809-011-11	DIODE RL22 LF-B2	
D654	8-719-935-86	ZENER HZS15-1L (KV-9PT20 ONLY)	
D655	9-904-528-01	DIODE ERC30-02K (KV-9PT20 ONLY)	
D656	9-900-931-01	DIODE ERA18-04V3 (KV-9PT20 ONLY)	
D657	8-719-934-00	ZENER HZS22 2L (KV-9PT20 ONLY)	
D658	8-719-934-00	ZENER HZS22 2L (KV-9PT20 ONLY)	
D659	9-904-519-01	ZENER HZS12C3L (KV-9PT20 ONLY)	
D661	9-900-931-01	DIODE ERA18-04V3 (KV-9PT20 ONLY)	
D664	8-719-995-01	ZENER HZ6C1	
< FUSE >			
Δ F601	9-908-791-01	FUSE 5A/125V	
	9-901-503-01	FUSE-CLIP (F601)	
Δ F651	9-908-792-01	FUSE 10A/125V (KV-9PT20 ONLY)	
	9-901-503-01	FUSE-CLIP (F651)	
Δ F652	9-908-792-01	FUSE 10A/125V (KV-9PT20 ONLY)	
	9-901-503-01	FUSE-CLIP (F652)	
< IC >			
Δ IC601	1-809-873-11	IC STR-M 6546	
IC651	8-759-947-49	IC FA5301P (KV-9PT20 ONLY)	
< COIL >			
Δ L601	9-904-534-01	FILTER-LINE A2200470	
Δ L602	9-909-042-01	FILTER OELB10-715	
Δ L603	9-901-560-01	FILTER ZBF503D-00TA	
Δ L604	9-901-560-01	FILTER ZBF5030-00TA	
Δ L605	9-901-560-01	FILTER ZBF5030-00TA	
Δ L606	9-901-560-01	FILTER ZBF5030-00TA	
Δ L607	9-901-560-01	FILTER ZBF5030-00TA	
Δ L608	9-909-042-01	FILTER OELB10-715	
L652	9-906-462-01	INDUCTOR 10uH	
L653	9-908-919-01	INDUCTOR 47uH	
L654	9-901-560-01	FILTER ZBF5030-00TA	
L655	9-901-560-01	FILTER ZBF5030-00TA	
L656	9-906-001	FILTER ZBF5030-00TA (KV-9PT20 ONLY)	
L690	9-909-034-01	BEADS CORE HF50BB 3.5X5X1.3	
L691	9-909-034-01	BEADS CORE HF50BB 3.5X5X1.3	
L692	9-909-034-01	BEADS CORE HF50BB 3.5X5X1.3	

shading and mark Δ are critical for safety.
Replace only with part number specified.

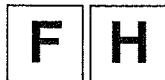
une trame et une marque Δ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

Markings have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.

F

Ref. No.	Part No.	Description	Remark
L693	9-909-034-01	BEADS CORE HF50BB 3. 5X5X1. 3	
< PHOTO CUPPER >			
Δ PC601	9-904-532-01	PHOTO-CUPPLER PS2501-1 K	
Δ PC602	9-904-532-01	PHOTO-CUPPLER PS2501-1 K (KV-9PT20 ONLY)	
< THERMISTOR >			
Δ PTH601	9-904-535-01	NTH 903P51D050MN14	
< TRANSISTOR >			
Q601	9-906-466-01	TRANSISTOR 2SC3246H (KV-9PT20 ONLY)	
Δ Q651	9-904-517-01	FET 2SK2050F121 (KV-9PT20 ONLY)	
Q652	8-729-820-24	TRANSISTOR 2SC3330-T (KV-9PT20 ONLY)	
Q653	8-729-820-24	TRANSISTOR 2SC3330-T (KV-9PT20 ONLY)	
Q654	8-729-611-52	TRANSISTOR 2SA1115 (KV-9PT20 ONLY)	
Q655	8-729-820-24	TRANSISTOR 2SC3330-T	
Q656	9-906-466-01	TRANSISTOR 2SC3246-T11-A-H/J TP (KV-9PT20 ONLY)	
Q657	9-904-554-01	TRANSISTOR 2SC3789-YA (KV-9PT20 ONLY)	
Q658	8-729-820-24	TRANSISTOR 2SC3330-T	
Q659	8-729-820-24	TRANSISTOR 2SC3330-T	
Q660	8-729-820-24	TRANSISTOR 2SC3330-T	
< RESISTOR >			
Δ R601	1-202-661-11	SOLID 4. 7M 10% 1/2W	
Δ R602	9-904-487-01	CEMENT 1 10% 7W	
R604	1-249-441-11	CARBON 100K 5% 1/4W (KV-9PT20 ONLY)	
R605	1-247-847-00	CARBON 4. 7K 5% 1/4W	
R606	1-249-393-00	CARBON 10 5% 1/4W	
Δ R607	9-908-774-01	METAL 0. 33 5% 1W	
R608	1-249-441-11	CARBON 100K 5% 1/4W	
Δ R650		CARBON 5% 1/4W (KV-9PT20 ONLY)	
R651	1-249-429-11	CARBON 10K 5% 1/4W (KV-9PT20 ONLY)	
R652	1-247-849-00	CARBON 5. 6K 5% 1/4W (KV-9PT20 ONLY)	
R653	1-247-849-00	CARBON 5. 6K 5% 1/4W (KV-9PT20 ONLY)	
Δ R654	9-904-290-01	FUSE 0. 68 5% (KV-9PT20 ONLY)	
R655	1-247-865-00	CARBON 27K 5% 1/4W (KV-9PT20 ONLY)	
R656	1-247-861-00	CARBON 18K 5% 1/4W (KV-9PT20 ONLY)	
R657	1-247-839-00	CARBON 2. 2K 5% 1/4W (KV-9PT20 ONLY)	
R658	1-247-873-00	CARBON 56K 5% 1/4W (KV-9PT20 ONLY)	

Ref. No.	Part No.	Description	Remark
R659	1-247-871-00	CARBON 47K 5% 1/4W (KV-9PT20 ONLY)	
R660	1-247-862-11	CARBON 20K 5% 1/4W (KV-9PT20 ONLY)	
R661	1-249-441-11	CARBON 100K 5% 1/4W (KV-9PT20 ONLY)	
R662	1-249-417-11	CARBON 1K 5% 1/4W (KV-9PT20 ONLY)	
R663	1-249-417-11	CARBON 1K 5% 1/4W (KV-9PT20 ONLY)	
R664	1-247-863-00	CARBON 22K 5% 1/4W (KV-9PT20 ONLY)	
R665	1-247-825-00	CARBON 560 5% 1/4W (KV-9PT20 ONLY)	
R666	1-247-801-00	CARBON 56 5% 1/4W (KV-9PT20 ONLY)	
R667	1-247-831-00	CARBON 1K 5% 1/4W (KV-9PT20 ONLY)	
R668	1-247-839-00	CARBON 2. 2K 5% 1/4W (KV-9PT20 ONLY)	
R669	1-247-871-00	CARBON 47K 5% 1/4W (KV-9PT20 ONLY)	
Δ R670	9-906-414-01	FUSING 0. 1 10%	
R671	1-247-839-00	CARBON 2. 2K 5% 1/4W (KV-9PT20 ONLY)	
R672	1-247-807-91	CARBON 100 5% 1/4W (KV-9PT20 ONLY)	
R673	1-247-837-00	CARBON 1. 8K 5% 1/4W (KV-9PT20 ONLY)	
R674	1-247-859-00	CARBON 15K 5% 1/4W	
R675	1-247-863-00	CARBON 22K 5% 1/4W (KV-9PT20 ONLY)	
R676	1-247-867-00	CARBON 33K 5% 1/4W	
R677	1-247-865-00	CARBON 27K 5% 1/4W	
Δ R678		CARBON 5% 1/4W	
Δ R679	9-908-769-01	FUSING 33 5% 1/4W	
R680	1-247-831-00	CARBON 1K 5% 1/4W (KV-9PT20 ONLY)	
R681	1-247-835-00	CARBON 1. 5K 5% 1/4W	
R682	1-247-847-00	CARBON 4. 7K 5% 1/4W	
Δ R683	9-908-770-01	FUSING 56 5% 1/2W	
R684	1-249-429-11	CARBON 10K 5% 1/4W	
R685	1-247-881-00	CARBON 120K 5% 1/4W	
R686	1-249-429-11	CARBON 10K 5% 1/4W (KV-9PT20 ONLY)	
R687	1-247-849-11	CARBON 5. 6K 5% 1/4W (KV-9PT20 ONLY)	
R690	1-247-819-00	CARBON 330 5% 1/4W (KV-9PT20 ONLY)	



for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.

une trame et une marque Δ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

shading and mark Δ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
< RELAY >			
Δ RY601	9-908-961-01	RELAY VG-12 TM-UL	
RY602	9-908-961-01	RELAY VG-12 TM-UL (KV-9PT20 ONLY)	

< TRANSFORMER >

Δ T601 9-908-819-01 SW-TRANS

< VARIABLE RESISTOR >

Δ VR651 9-905-166-01 R-SEMX 1K (DC IN +40V ADJ)
(KV-9PT20 ONLY)
 Δ VR652 9-905-166-01 R-SEMX 1K (AC IN +40V ADJ)

< VARISTOR >

Δ VD601 9-904-533-01 VARISTOR ENC241D-10AS

* 9-908-852-01 H BOARD, COMPLETE

< CAPACITOR >

C401 1-164-004-11 CERAMIC CHIP 0.1MF 10% 25V

< CONNECTOR >

CN101S 9-908-814-01 CONNECTOR

< DIODE >

D1 9-908-797-01 LED SLR33MGF03L/M/N

< IC >

IC102 9-907-498-01 IC GP1U901X

< RESISTOR >

R102 1-216-019-00 CHIP-R 56 10% 1/10W

MISCELLANEOUS

Δ 1-452-126-11 MAGNET
 Δ 1-452-760-11 NA (NECK ASSY)
 Δ V701 8-375-822-05 PICTURE TUBE (A23LDU10X)
 Δ 8-451-450-11 DY (Y10SLA)
9-901-595-01 AC INLET (KV-9PT20 ONLY)
9-906-157-01 SPEAKER
 Δ 9-908-820-01 AC CORD-10 (KV-9PT40 ONLY)
 Δ 9-909-035-01 D. G. C

Ref.No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

Δ 1-751-198-21 CAR BATTERY CORD (DCC-22AW) (KV-9PT20 ONLY)
3-759-169-21 MANUAL, INSTRUCTION
(ENGLISH/FRENCH/SPANISH) (KV-9PT20 ONLY)

3-759-170-21 MANUAL, INSTRUCTION
(ENGLISH/FRENCH/SPANISH) (KV-9PT40 ONLY)
9-901-590-01 AC CORD (KV-9PT20 ONLY)

* 9-908-835-01 CARTON-S-10
* 9-908-837-01 CUSHION-10

* 9-908-839-01 PACKING BAG
9-908-840-01 ROD ANT-10 (BLACK) (KV-9PT20 ONLY)
9-908-841-01 ROD ANT-10 (WHITE) (KV-9PT40 ONLY)

REMOTE COMMANDER

1-465-958-11 REMOCON (RM-792) (BLACK) (KV-9PT20 ONLY)
1-465-959-11 REMOCON (RM-793) (WHITE) (KV-9PT40 ONLY)